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Scoop and Share

Exploring the use of Digital Curation in the ESL classroom

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Abstract

The aim of this study is to explore the potentials of digital curation in an educational context. I wish to illuminate how this approach can promote digital literacies for the 21st century, and furthermore how students understand and experience being digital curators, developing Personal Learning Networks, and reading and writing online.

To find answers, a research project was conducted among ESL learners in an upper secondary school in Sør-Trøndelag. During this project, 22 students used the digital curation tool Scoop.it to find resources and to learn about the topic multiculturalism over a period of four weeks. This study can therefore be characterized as digital literacy research, as it explores how people act, learn, communicate and distribute knowledge while using digital technology. To do this, observations, a digital survey, interviews and collecting authentic student texts were used as methodological approaches for collecting data.

The study has found that digital curation can be a valuable approach to promote skills such as searching, evaluating, commenting, sharing, reading and writing. These skills are closely connected to collaboration, comprehension and critical thinking, which are significant literacies for today's digital learners. Most of the students in this project experienced digital curation as useful for gathering digital resources, and they valued being able to choose texts to read from a variety of web pages. Furthermore, writing insight-comments in accompany with the collected resources, appeared to make the students more critical regarding what sources they chose to curate. The study also found that the various acts of digital curation take place at different taxonomic levels, which means that this connectivist learning approach can find support in Blooms' Revised Taxonomy for cognitive processes. However, the students only got a taste of developing their own Personal Learning Networks, which means that there are a great deal of potential linked to digital curation waiting to be explored.

Consequently, I believe digital curation can provide a valuable contribution to schools aiming to have an active, yet critically conscious relationship to new technologies, and to teachers who recognize the potentials found in the encounters between traditional teaching and a digital culture for knowledge.

Keywords: Digital curation, Scoop.it, 21st century learning, Digital literacy, ICT, English, Upper secondary school, Educational research

Samandrag

Målet med denne studien er å utforske potensialet som ligg i å arbeide med digital kuratering i ein fagleg kontekst. Eg ynskjer å setje søkelys på korleis ei slik tilnærming kan fremme digitale *literacies* for det 21.århundre, og vidare sjå på korleis elevar sjølve opplever å vere digitale kuratorar, å utvikle personlege læringsnettverk, samt då lese og skrive på nett.

For å finne svar, vart eit forskingsprosjekt gjennomført blant engelskelevar ved ein vidaregåande skule i Sør-Trøndelag. I løpet av dette prosjektet arbeidde 22 elevar med det digitale kurateringsverktøyet Scoop.it, for å finne ressursar og for å lære om temaet multikulturalisme over ein periode på fire veker. Denne studien kan dermed kallast *digital literacy*-forsking, sidan den utforskar korleis menneskjer handlar, lærer, kommuniserer og distribuerer kunnskap ved hjelp av digital teknologi. Dette vart gjort gjennom metodar som observasjon, ei digital spørjeundersøking, intervju, samt innsamling av autentiske elevtekstar.

Denne studien har funne ut at digital kuratering kan vere ei nyttig tilnærming for å fremme ferdigheiter som søking, evaluering, kommentering, deling, lesing og skriving. Desse ferdigheitene kan vidare knytast til samarbeid, forståing og kritisk tenking, som er sentrale *literacies* for dagens elevar. Dei fleste elevane i prosjektet verka å oppleve digital kuratering som nyttig for å samle digitale ressursar, og dei sette pris på å velje tekstar å lese frå ei rekke nettsider. Å skrive såkalla innsiktskommentarar til ressursane verka vidare å gjere elevane meir kritiske til kva kjelde dei valde å kuratere. Studien har også vist at dei ulike handlingane i ein digital kurateringsprosess kan finne stad på ulike taksonomiske nivå. Dette betyr at ein slik konnektivistisk læringsaktivitet kan finne støtte i Bloom sin reviderte taksonomi for kognitive prosessar. Samstundes fekk elevane berre ein smakebit på prosessen å utvikle eit eige personleg læringsnettverk, noko som betyr at det framleis ligg eit stort potensiale i læringsarbeidet med digital kuratering som ventar på å bli vidare utforska.

Basert på denne studien, meiner eg at digital kuratering vil vere eit verdifullt bidrag til skular som tek sikte på å ha eit aktivt, men samstundes eit kritisk bevisst forhold til ny teknologi, og til lærarar som verdsetter potensialet som finst i møtet mellom tradisjonell undervisning og ein digital kunnskapsskultur i det 21.århundre.

Nøkkelord: digital kuratering, Scoop.it, *literacy* i det 21. århundre, IKT, utdanning, engelsk, vidaregåande skule, forsking

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“If we teach today’s students as we taught yesterday’s, we rob them of tomorrow”

John Dewey

1. Introduction

All language teachers would probably agree upon reading and writing as important literacies in English. However, literacy in the 21st century is complex and difficult to define, and has come to include more than the ability to read and write. We are living and learning in the age of technology, which both shapes and is shaped by how we communicate with one another. Some call it the 'information age,' others the 'knowledge-based society' or even the 'post-modern age of connectivity'. Regardless of the chosen term, our contemporary times are characterized by information and communication technologies (ICT), and we have over the past few decades seen an increasing demand for new approaches and pedagogies that foster lifelong learning (McLoughlin & Lee, 2007). Different aspects of collaboration and digital literacy are expected in many professions, and skills desired by employers are developing rapidly. At the same time, the social context for learning has changed, and is continuously developing. To use a popularized term: the digital technologies have made new generations 'digital natives' (Prensky, 2001). As a result, literacy in the 21st century involves a variety of skills, whereas being able to manage, analyze and criticize multiple streams of information, and sharing information for global communities are some of them. Based on this, knowing how to make use of online tools without being overloaded with too much information becomes an essential ingredient to being digitally literate in today's society.

1.1 Background and Purpose

This research project set out to explore how ESL[1] learners understand digital curation, and how it can be a useful approach to learn English and promote digital literacy. The term *curation* used to be reserved for the people who ran museums, whereas *a curator* was someone in charge of an exhibition or a collection of art. The term has however been revived and expanded to describe the way particular Web participants can act as information finders and evaluators for each other (Rheingold, 2012, p.129). A *digital curator* can thereby be understood as someone collecting, evaluating and presenting a selection of sources, both for themselves and for others. These skills can arguably be both useful and relevant for the 21st century language learner.

[1] English as a Second Language

1.1.1 Research questions and my project

With this in mind, I am interested in examining how digital curation can be used in an ESL classroom in order to promote digital literacy. Therefore, my main research question is:

> *How can digital curation support the promotion of digital literacy among ESL learners in upper secondary school?*

I have also developed research questions in order to support my main topic question. These questions are:

1) *How do students understand and experience being digital curators?*
2) *To what degree do students find developing a Personal Learning Network useful?*
3) *How do students reflect upon reading and writing online as a part of the digital curation process?*

These research questions have been included in order to sharpen the focus of this thesis, to provide guidelines for the enquiries along the way, and to support the process of analyzing the collected material. I ask these questions while recognizing that the promotion of digital literacy is a complex learning process, but at the same time believing that they will assist me in the search for interesting answers. In order to find such answers, I have explored a group of students in upper secondary school and their experiences with digital curation as a method in the ESL classroom. Over a period of four weeks, these students worked on a project in their International English course where they used Scoop.it as a digital curation to collect and gain knowledge about the topic "Multiculturalism." In this manner, digital literacy was not the only aim of this project. Scoop.it a source for learning about aspects of culture and society, with the aim of fulfilling a set of competence aims from the subject curriculum (LK06). These will be further elaborated upon in section 2.4.2. With my research questions as a starting point, I wished to examine how working in this manner and writing insight-comments could promote the student's digital literacy and cultural knowledge, with emphasis on organizing, analyzing and sharing information. To do this, I chose observations, a survey, four interviews and collecting authentic student texts as methodical approaches to my enquiries, which will be further elaborated on in chapter 3.

1.1.2 Relevant terminology

In order to avoid ambiguity and misunderstandings, I find it necessary to define some terms that will be frequently used in this thesis at an early stage. *Second Language Learning* (SLL) is in this study limited to learning English in Norway, and will more specifically be referred to as *English as a Second Language* (ESL). This is in keeping with the Norwegian subject curriculum, where the terminology distinguishes between a learner's second and third language (Utdanningsdirektoratet, 2006a). English is here regarded as a second language, while languages such as French, German or Spanish are seen as foreign. As previously mentioned, the term *literacy* is often defined as the ability to both read and write. However, it also refers to a competence within a specified area that includes the cultural and communicative practice shared among members of a particular group (Jones & Flannigan, 2005). Based on this, *digital literacy* is more than the ability to use particular software or digital device to read or write. It also includes a complex cognitive, emotional and sociological skill adapted to different digital environments, and will be further elaborated upon in section 2.1. *Writing* will in this thesis refer to *digital writing*. In general, writing might be connected to the writing *process* or the *practical skill* of writing, but linked to technology and digital medias, it will in this context be regarded as a social process as well as an individual one (Herrington, Hidgson, & Moran, 2009). Based on the previously mentioned definition of *digital curation*, I will be using the term *digital curator* when referring to someone who creates collections of resources online, both for own use and to function as information finders and evaluators for others (Rheingold, 2012, p.126). Consequently, being a digital curator is closely linked to creating your own *Personal Learning Network* (PLN). A PLN is a network of people you learn from, as well as a network of people that learns together, and can take place both inside the classroom or in a digital sphere (Rheingold, 2012, p.228). A digital PLN refers to a new way of aggregating and organizing knowledge, and emphasizes learning in online arenas outside the classroom. A PLN can be educational, professional, personal, or a combination, where the aim is to remain connected to new information and people of interest.

1.2 Digital Curation

There are several of digital tools to choose between for the purpose of curating resources. They come in different designs and with various focus areas, and some can arguably be more

useful in educational contexts than others. A survey conducted by EduBlogger found that the top five digital curation tools among educators were: 1) Diigo, 2) Twitter, 3) Evernote, 4) Pinterest and 5) Scoop.it (Waters, 2014). However, it should be noted that this survey reflects the tools used *by* educators and not necessarily *in* their classrooms in particular. Regardless, this gives us a brief overview of the existing tools and their popularity. So how can these digital curation tools be of use? *Diigo* emphasizes knowledge management, and is a place where you can store and share texts you have read, including your highlighted sentences and comments in the margins (www.diigo.com). *Twitter* focuses more on social networking, where you can share ideas and information instantly, follow the information stream of anyone you find interesting, and write your own "tweets" limited to 140 symbols (www.twitter.com). *Evernote* on the other hand focuses less on communication, but is rather a tool where you can collect articles, make notes and simply structure and organize your work in an effective manner, as well as access it from all your devices (www.evernote.com). Evernote consequently seems to be a tool appropriate for individual work and study, rather than a social media that includes sharing and commenting. *Pinterest* has more characteristics of social networking, and is a tool where you can discover ideas and resources to a close to unlimited field of interests, and create digital portfolios to curate and categorize these (www.pinterest.com). Tools such as Pinterest focus to a great extent on creativity and hobbies, and pictures of this that link back to its original source. I can also mention *Pocket*, *We Heart It*, *Curata*, *Trap.it* and *Stumble Upon* as examples of similar content curation tools. Similar to Pinterest, Scoop.it is based on mainly the same layout and tool structure (www.scoop.it). However, Scoop.it focuses more on articles or videos as resources for curation, and furthermore adds emphasis sharing these "scoops" along with your own comments. I have found these aspects of reading, writing and sharing aspects particularly interesting, which is why I chose to use Scoop.it as a content curation tool for this study.

1.2.1 Scoop.it

Scoop.it is a curation platform that enables users to collect news stories, videos, articles and other resources found on the Internet. Anyone can open an account, create a digital portfolio according to their area of interest, and start collecting relevant resources. It is up to the curator to determine the material that should be processed, presented and furthermore shared on their own custom-themed Scoop.it site (Krokan, 2012, p.84). Scoop.it provides what they in their own words refer to as a "visually attractive virtual space," and allows you to curate (or

"scoop") and publish content simultaneously with access from multiple devices. Since it was established in 2011, it has grown to be one of the most popular digital curation tools, and according to the company's own blog, one million people and businesses are now using Scoop.it for content curation (Decugis, 2014). The program allows you to create two digital portfolios for free, while you are required to pay an annual fee and upgrade to a premium account if you want to create more portfolios, upload own documents or have more editing possibilities. However, for this research project and for classroom use in general, I believe two folders are sufficient, and will not influence the possible learning outcome to a mentionable degree. To illustrate what Scoop.it page can look like, I have created figure 1.1 for the purpose of this thesis:

Figure 1.1: A visualization of a Scoop.it page

As illustrated above, a Scoop.it page consists of a heading stating the topic, and boxes below consisting of both pictures and text. At the top right you will find *information about the curator*, such as the name of the curator and information about his or her community or network. Furthermore, you find the list of the curator's *collected resources*, which can be texts, pictures and video clips from any available source on the Internet. These are also called "scoops,"[2] and refer to the understanding of a scoop as "information especially of immediate

[2] A scoop can also refer to "a tool with a handle and a curved open end, used to dig out and move an amount of something", for instance a "scoop of ice cream," but that is an entirely different context, unless the digital action of scooping as digging something out and move it onto for instance your digital curation account?

interest" (Merriam-Webster's Dictionary) . Below each of these scoops visualized in figure 1.1, the curator can comment and give his or her perspectives on the curated resource, and provide their *insight-comment*[3]*s*. This is where writing becomes the essential part of this digital curation tool.

1.3 Previous Research and the Relevance of this Study

As this thesis explores a digital approach in the ESL classroom, it touches upon a field of research on skills and literacies for the 21st century that has been gaining momentum over the past decades. In a Norwegian context, The Ludvigsen Committee is of special significance in this area of development, and is a formal committee appointed by the Department of Education in 2013. Their job is to assess to what degree today's academic content in the Norwegian school system covers the competencies and skills the committee considers will be needed in the future, both in society and in their future working lives (Kunnskapsdepartementet, 2014). Based on a mapping of 21st century skills, the committee has discovered ten competencies that are the most frequently explored in both national and international research:

1. Competence within the given subject
2. ICT competence
3. Communication and cooperation
4. Creativity and innovation
5. Critical thinking and problem solving
6. Metacognition and learning to learn
7. Personal and social responsibility - ethical and emotional awareness
8. Cultural awareness and competence
9. Life and career / job skills
10. Citizenship - locally and globally

A common factor for all of these research areas is that they consider competencies as something complex and composed by knowledge, skills and attitudes, as well as being closely connected to social and emotional competencies. Several of these competencies are already included in the Knowledge Promotion, but it is argued that they are more significant than ever, and that they should be given more room in school. An example of early international

[3] The term *insight-comment* will in this thesis be used because Scoop.it asks their users to "provide your insights here" in the box for comments below each scoop. In this manner, an insight-comment might refer to something slightly different than a regular comment, which will be further elaborated upon in section 2.3.2.

research that has inspired this way of thinking is the UNESCO[4] reports *Learning to Be: The World of Education Today and Tomorrow* from 1972 and *Learning: The Treasure Within* from 1996. Both of their reports aimed to define how the systems of education should deal with the rapid changes in society (Kunnskapsdepartementet, 2014, p.117). The latter report was developed by The International Commission of Education for the Twenty-First Century, and was a significant contribution to challenge traditional approaches to thinking about learning. Furthermore, OECD[5] presented a report in 2001 with an emphasis on competences needed to succeed in life and to create a good society. The Partnership for 21st Century Skills (P21) also focuses on relevant competencies for the future, and was founded in USA in 2002. This was a project to develop a framework for core subjects and 21st century themes, teaching and thinking skills, ICT literacy and life and career skills. We may also keep in mind the Key Competence Network on School Education (KeyCoNet) project, which implements the European framework and the EU's understanding of 21st century skills, and the International Society for Technology in Education (ISTE) that has a more digital focus in their framework (Kunnskapsdepartementet, 2014, p.122). Based on this international research and an evaluation of the academic content in Norwegian schools, The Ludvigsen Committee's preliminary reports show that the ability of *critical thinking, problem solving, communication* and *cooperation* will become even more important in the future. Their complete report will however be presented later this year (2015), and could therefore unfortunately not be implemented in this thesis. ICT in education in Norway also receives attention at the annual conference NKUL[6] hosted at NTNU in May, where teachers, teacher trainers and others from the education sector hold and participate in workshops about various topics. It is in this context interesting to note that this year's keynote speaker was Howard Rheingold, a significant source of inspiration for this thesis, whose theories I will return to as a part of my theoretical framing in chapter 2.

As seen above, a variety of research projects on learning in the 21st century have been conducted. There are also a variety of articles and books about ICT in education, 21st century literacy, how social media changes learning, digital competencies, reading and writing, and how to use various digital tools in the language classroom. Digital curation has also been discussed by several scholars, for instance by Howard Rheingold (2012) and NTNUs Arne

[4] The United Nations Education, Scientific and Cultural Organization
[5] Organization for Economic Co-operation and Development
[6] Nasjonal konferanse om bruk av IKT i utdanning og læring

Krokan (2012). However, I have not come across previous research specifically related to *digital curation* in an educational or ESL context. This has on the one hand made some aspects of my research process a bit more challenging; however on the other hand, it has become even more interesting. It is therefore my belief that even though this is a small research project, it can still provide some interesting contributions to the field of ICT and digital learning. From a didactical perspective, I believe my study is relevant to continue directing attention to the need for digital literacy among both teachers and students in the ESL classroom. I wish to explore a specific digital approach that can promote various 21st century literacies, and perhaps inspire others to try the same methods or even develop this approach further. As Kern, Ware & Warschauer (2004) puts it:

> Language educators should use the Internet not to teach the same things in a different way, but rather to help students enter into a new realms of collaborative inquires and construction of knowledge, viewing their expanding repertoire of identities and communication strategies as a resource in the process (p.254).

Inspired by these perspectives, I wish to explore the potentials of working with digital curation, not only to read and write in new ways on the Internet, but to see how the students experience conducting own inquiries, organizing knowledge and explore communication in a digital networked community.

1.4 Chapter Summary and Thesis Structure

This study focuses on how digital curation can be used in upper secondary school to promote knowledge and digital literacy among ESL learners. It also wished to explore the students' own meta-reflections on being digital curators, developing a PLN and reading and writing in a digital context. To explore this topic, I have outlined one main research question and three sub-questions linked to these focus areas. The theoretical background for this will be clarified in chapter 2, where I will present the theoretical framing and clarify relevant terminology. Furthermore, I will in chapter 3 present the methods used for collecting data, and reflect upon my role as a researcher in the process. Chapter 4 will present the analysis of the collected data; the discussions will also be presented in chapter 5, before the thesis is summarized and the research questions revisited in chapter 6. I will also towards the end look ahead to see what this study can add to the field of English didactics, how it will influence my own future practice, as well as suggest a few new topics for further research.

2. Theoretical Framing

To understand the connections between digital curation, digital literacy and language learning in the 21st century, I lean on several theories as suitable framings for this study. To illustrate this, I will firstly present what can be regarded as *new literacies*, and draw the lines between established learning theories and new focus areas in the 21st century. Secondly, I will present the process of digital curation, and present and discuss different content curation tools and the renewed vocabulary that has occurred as a result of these new medias. Furthermore, I will reflect upon how the digital aspects influences reading and writing, with an emphasis on reading authentic texts and connective writing in an open digital sphere. I will also present Bloom's Taxonomy and the National Curriculum as relevant perspectives for approaching my material towards the end. The following chapter will thereby present the theoretical starting point for my inquiries, and most importantly serve as a foundation for the discussion in chapter 5.

2.1 New Literacies in the 21st Century

Learning in the 21st century involves acquiring a variety of *new literacies* (Johnson, 2014). *New literacies* is an umbrella term that has emerged to encompass a variety of new skills and competencies that has occurred as a result of technology, and can also be referred to as *21st century literacies, Internet literacies, computer literacies, new media literacies, multi-literacies, information literacies, ICT*[7] *literacies* and *digital literacies*. In this thesis, I will mostly refer to *digital literacies*, which is also the term I have chosen to use in my research question. Digital literacies can be defined as:

> Skills, strategies, and dispositions necessary to successfully use and adapt to the rapidly changing information and communication technologies and contexts that continuously emerge in our world and influence all areas of our personal and professional lives (Leu, Kinzer, Coiro and Cammac, 2004, in Johnson, 2014, p.4).

This definition is quite extensive, and illustrates the complexity of skills that one considers needed in the 21st century. Technology has influenced the stream of information available at all times, and furthermore how we communicate with each other all over the world. It is thereby considered necessary for our students to acquire a variety of so-called new skills, such

[7] ICT = Information and Communication Technology

as creativity, communication, collaboration, critical thinking and comprehension. Students also need to be taught different strategies that they can use to identify important questions, locate relevant information, and evaluate and communicate this information to others. Collaboration, flexibility and reflections are thereby also relevant for the purpose of engaging with this information in a thoughtful and meaningful manner. Some are however critical to the term "21st century skills" and see it as only a "powerful heading", "a jazzy name", "a buzz word" or argue that "current-century skills have been around ever since Socrates" (Tolisano, 2010). It is argued that the skills of creativity, critical thinking and communication are nothing new to this century, and I agree. Many of these new literacies have been of great importance earlier as well, and one should not overuse this terminology if only as catchy headline. However, there is no denying that technology has over the past decade not only changed our society and everyday lives, but also the way we learn. So even though these new literacies can be varied and complex, we might be able to agree upon the term *digital literacy* as something significant for how learning takes place in a digital environment, and digital curation as one aspect of this.

2.1.1 Learning theories of the digital age

Considering the variety of influences in our increasingly digital world, we can assume that learning theories are still evolving. New theories will continue to emerge as we change how we communicate, search for information and become more digital in our daily lives. However, this does not mean that earlier learning theories are without value in the 21st century. One often consider learning theories to be categorized into three main models for explaining how learning takes place (Krokan, 2012, p.119). Firstly, *behavioristic learning theories* explore a mechanical approach to learning, and focus on learning as something conditioned by stimuli, repetition and rehearsal. Secondly, *cognitive learning theories* are on the other hand preoccupied with an inner motivation for learning, where the focus is on individual learning, and where meaning is constructed isolated from others. From a cognitive perspective, digital literacy be understood as the learners' ability to understand and use information in multiple formats from a wide range of digital sources (Jones & Flannigan, 2005). Thirdly, *constructivist-learning theories*, and more specifically *social constructivism*, is concerned with the acquisition of knowledge from the interaction with others, and emphasizes the *processes* that leads to understanding, preferably within the 'Zone of Proximal

Development' (ZPD[8]). Social constructivism posits that social interactions precede the development of knowledge and understandings, which furthermore are the end product of socialization and social interactions (Howell, 2012). In this manner, social interaction plays a key role in the development of knowledge, and the 'more knowledgeable other' (MKO) is important to learning. This refers to someone who has a better understanding or higher level of knowledge than the learner, for instance a teacher. However, in a digital context, the learner has access to a network of others who could also potentially be 'more knowledgeable others'. Consequently, something happens to the way we understand learning because of new technologies. A variety of scholars have therefore argued that there is both a need for, and room for, additional perspectives (e.g. Downes, 2005; Krokan, 2012; Rheingold, 2012; Richardson, 2012; Siemens, 2004), which will be further elaborated upon in the following.

2.1.2 From closed classrooms to open networked learning

Although computer networks have been used for interpersonal communication since the 1960s, it was not until the 1980s that they began to serve language teaching (Kern, Ware, & Warschauer, 2008). Since then, the viability of technology-integrated teaching for supporting second-language acquisition (SLA) and intercultural learning has grown rapidly, especially in the past decades. The terms *Computer-Supported Collaborative Learning* (CSCL) and *Computer-Assisted Language Learning* (CALL) is of significance in this context, which focuses on when learning takes place via social interactions using a computer or the Internet. Learning theories where knowledge is constructed in a social context, such as *social-constructivist theories* and *connectivism*, has thereby inspired CSCL and CALL (Kern et al., 2004). This can also be linked to *Network-Based Language Teaching* (NBLT), which refers specifically to the pedagogical use of computers connected in either local or global networks.

One of the driving minds behind the theories of net-enabled learning and the power of collaboration is Howard Rheingold. He is convinced that understanding how networks work is essential in order to be literate in the 21st century. In his book "Net Smart" he outlines five fundamental digital literacies, or online skills: *attention, participation, collaboration, critical consumption of information,* and *network smarts* (Rheingold, 2012). All of these skills are relevant to consider in a networked classroom. *Attention* is about being able to avoid

[8] A term coined by Vygotsky (1978) that point to the domain where learning can most productively take place. This is the domain of knowledge or skill where the learner is not yet capable of independent functioning, but can still achieve the desired outcome by being given relevant scaffolded help (Mitchell & Myles, 2004).

distractions and maintaining focus in a digital environment, and is a skill Rheingold believes can and should be trained. *Participation* is simply to participate in a digital society instead of being a part of a passive consumers' culture. It is therefore about both empowering yourself and building something together online, and create value for others. Rheingold points out that participation can start with lightweight activities, such as tagging, liking and bookmarking, and then move to higher engagements with curation, commenting, blogging and community organizing. *Collaboration* is also of significance in a digital context as "the Web is the primary example of network-enabled collaboration on a scale that was never before possible" (ibid, p.147). *Critical consumption of information*, or *crap detection*, refers to online-search skills and the ability to critique what you find and "think like a detective". Finally, Rheingold is convinced that understanding how networks work, or being *network-smart*, is the most important literacy, in which the other four are connected to. The value of networked learning is thereby built upon the idea that diverse networks are collectively smarter, and can thereby provide a richer variety of resources to the network participants. This is also supported by Will Richardson's thoughts on connective and networked learning, as he points out: "when we share online, we create the potential for connections in ways that were simply not possible a few years ago. A capability that fundamentally changes almost everything" (Richardson, 2010, in Johnson, 2014, p.13) .

Connectivism as a theory is based on the belief that learning occurs as a part of a *social network* (Krokan, 2012). The theory highlights knowledge and cognition as something distributed across networks of people and technology, and stresses the learners' need to be able to construct and traverse those networks. Connectivism is thereby built upon the idea that knowledge is not only something that exists in our minds, but something that can be understood as structures in a network where digital services and documents are components - together with people. These ideas were introduces in 2004 by the pioneers of connectivism Stephen Downes and George Siemens, who argue that learning can also be stored or organized by technology. They believe that theories such as behaviorism, cognitivism and constructivism alone do not address the learning that occurs "outside" of people (Downes, 2005; Siemens, 2004). When recognizing this, and include technology and connection-making as learning activities, we also need to move our learning theories into the 21st century. The old learning theories are no longer adaptable to the new realities, because they have no relations to tools and services that challenge our understanding of what it means to have

knowledge about something. We need to understand the new conditions of learning, what it means to gain knowledge, and to understand how technology interacts with people. Siemens (2004) sums up the principles connectivism is built upon in eight main points:

Principles of connectivism:

1. Learning and knowledge rests in diversity of opinions.
2. Learning is a process of connecting specialized nodes or information sources.
3. Learning may reside in non-human appliances.
4. Capacity to know more is more critical than what is currently known.
5. Nurturing and maintaining connections is needed to facilitate continual learning.
6. Ability to see connections between fields, ideas, and concepts is a core skill.
7. Currency (accurate, up-to-date knowledge) is the intent of all connectivist-learning activities.
8. Decision-making is itself a learning process. Choosing what to learn and the meaning of incoming information is seen through the lens of a shifting reality. While there is a right answer now, it may be wrong tomorrow due to alterations in the information climate affecting the decision

(Siemens, 2004).

As seen in the list above, connectivism provides several valuable perspectives to learning in the 21st century. Nevertheless, it should also be specified that connectivism is not broadly agreed upon as a *learning* theory. This is because it can be argued that connectivism is best suited to be concerned with *the access to* distributed knowledge, and not with *how* learners learn. For instance, some have suggested that we should refer to connectivism as a theory of *education* instead of a theory for *learning* (Krokan, 2012). This means that connectivist theory can be said to be about what *tools* you can use to promote learning, but that does not *explain* the learning itself. Such explanations would in particular concern the connection between for instance motivation, learning process and results. It can thereby be said to promote more of a pedagogical view than to function as a learning theory. Others might claim that although technology affects learning environments, existing learning theories are sufficient. Still, for the purpose of this study, we might be able to agree upon the significance of the perspectives that this theory provides. As Krokan (2012) points out: the important aspect of this discussion on connectivist theory is the increased focus on the established

teaching practices and learning paradigms that is not adapted to an increasingly complex world (p.134). Last but not least, it also encourages an emphasis on working in a smarter manner that has been enabled by technology and digital tools. This is in accordance with the development and emergence of new pedagogies, where we have seen a shift towards a more autonomous learner. Learning in the 21st century is thereby not only based on what you *know*, but also what is within your capacity to *find out*. In order to do this, connectivism emphasizes networked learning.

A *Personal Learning Network* (PLN) can more specifically be a network that consists of people you want to learn from, or a group of people that learn together. It is all about collecting resources and sharing ideas, which allows you not only to keep tabs on what you find, but also explore the space of your interest (Krokan, 2012). PLN is therefore closely linked to connectivism theory, as these approaches to learning explore interactivity and the possibilities of understanding and learning together with others (Siemens, 2004). It can be a collection of reliable blogs, websites, wikis, twitters, and other resources that help in learning, acquiring skills and information. The aim is to remain connected with new information and people of interest to the user. Personal learning networks can be educational, professional, or personal or a combination. Rheingold (2012) illustrates PLN like this: Imagine a classroom where the students are asking each other questions in pairs, and looking for answers regarding a new course subject. Whenever they could not come up with an answer, they were asked to write down their question, and at the end of the lesson ask the entire class. Almost always, someone else in the class knows the answer. Apply the same principle to online networks that can contain hundreds of people all around the world, personally selected by you because of their expertise on the topic at hand, and you have a PLN (Rheingold, 2012, p.228).

A PLN is thereby not only focused on the *access* of information, but just as much on communication and *sharing* your own knowledge. Many scholars and writers within the field of ICT[9] and learning even believe that this is what future education will be about: learning through PLNs, rather than through by classroom based teaching (Krokan, 2012; Rheingold, 2012; Siemens, 2004). It is not my argument here that PLS can replace all classroom teaching, and working in this manner will in fact demand a certain degree of independence and level of source criticism among the students that they will need to be taught by someone, most likely the teacher in a classroom. But there are certainly many interesting aspects to this,

[9] Information and Communication Technology

especially for intermediate to higher levels of education, and the principles of learning in a network can be adapted to almost every level or course. Scoop.it is an example of a digital curation tool highly useful for developing a PLN, which will be further elaborated upon in part 2.2.

2.2 Digital Curation

The term *curation* used to be reserved for the people who ran museums (Rheingold, 2012, p.228). In this context, *a curator* was someone in charge of an exhibition or a collection of art, whose task was to collect, or curate, relevant resources for the topic of that particular exhibition. To illustrate the term's original definition, one might imagine an empty wall with the sign "Knitting". A curator would for instance collect pictures of knitted products, a poster that explains how to knit, a screen with a video exemplifying this, as well as a few samples of knitted clothing, and place these items on the wall. The curator might also add small notes to explain more about these resources, and give additional information about the source. Furthermore, this exhibition would be in display in the museum for all to see, and the public could utter their opinion as well. In a digital context, this term has been revived and expanded to describe the way particular web participants can collect and share resources online (ibid). One can therefore now speak of a digital version of *content curation*, or more specifically *digital curation.* By being a *digital curator*, anyone can act as information finders and evaluators for others. In this context, a curator would create a digital "wall" or a folder with a given topic as a title, and can search the Internet for articles and resources that would be relevant for that particular focus area. These selected resources would then be collected, or curated, and organized as a part of the topic of curation, and furthermore shared with others online. This audience could comment, like or share these resources to others as well. To use the same example as above, the topic could be knitting, and curated resources could be anything you find relevant, both for yourself and others, about knitting. It could be a digital article about the history of knitting, an instruction video found on YouTube and recopies from other curators anywhere on the Internet. This is however only an example, and the opportunities of topics one could curate information about are close to limitless. This process of content curation can be illustrated in this figure:

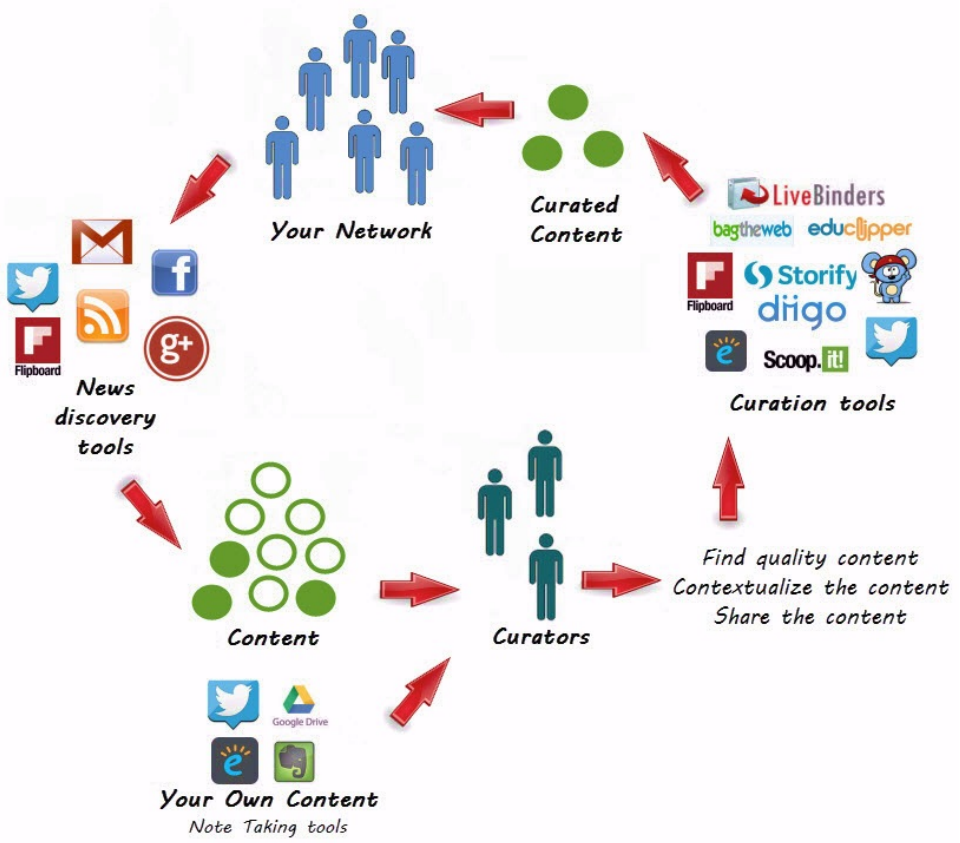

Figure 2.1: Content curation and curation tools (Waters, 2014, in Downes, 2014)

From figure 2.1 we can see that content curation is a circular process that consist of several steps. If we start at the far left, we find *news discovery tools* that are meant to help you discover and select new content, for instance by following a particular hashtag on Twitter. When you have access to a variety of *content*, you choose the ones you find the most interesting, which is illustrated as the green dots/circles. If you have created your *own content* by using for instance Google Disc or Evernote, you can upload this as well. Furthermore, we find the *curator*, who is finding, contextualizing and sharing the content through a *content curation tool*, which can be a variety of different digital tools. As illustrated in the figure, Scoop.it is one of these, which will be elaborated upon in part 2.2.1. The content can thereby be viewed by other curators in your *network*, and furthermore comment upon the curated resources or share it through their own *discovery tool*. In this manner, the process of curation continues as a way of processing and organizing the stream of digital information and resources. As a result, digital curation is meant to be of assistance both for knowing *where* to discover and re-discover resources, as well as to *follow* current developments within your field of study through a *Personal Learning Network* (2.1.2).

2.2.1 The vocabulary of digital curation

With regards to *literacy*, it is interesting to notice the use of vocabulary that emerges to illustrate the actions that take place in the process of content curation. New words seem to appear, or develop a new area of usage. Some words even appear to become linked to the tool at hand. Scoop.it for instance, refer to collecting resources as "to scoop something". A scoop is most commonly used to describe an exclusive news story for a journalist, or a shovel-like tool to make little balls of ice cream. In a digital curation context, a scoop would refer to a resource you have curated and found valuable to share with others. Scoop.it also encourages you to "publish yourself", which is in keeping with the idea of a networked community where anyone can be a curator and a publisher. Pinterest on the other hand encourages you "to pin" what you find interesting, or as they would say: "what you find *pinteresting*". Many would perhaps also recognize social media vocabulary such as "to tweet" something, or "a tweet" when using the social media Twitter. However, using these content curation tools do not automatically lead to more effective ways of learning. It is not enough to simply read and write on screen to become skilled readers and writers in a digital sphere. In order to promote the ESL learners' digital literacy, there are quite a few areas one should focus on.

2.3 Digital Reading and Writing

When working with digital curation, both digital reading and writing become essential parts of the process. However, as reading and writing are complex and extensive areas of digital literacy, I will not be able to present all aspects of these topics. I will therefore focus on those I believe are the most relevant in a digital curation context. Firstly, I will present various aspects of what can be termed as authentic reading online, and secondly how connective writing is a consequence of digital curation.

2.3.1 Authentic reading online

In its widest sense, "authenticity" is related to notions of "realness" or "true to origin" (Harmer, 2007). As a technical term in the field of English Language Teaching (ELT), authenticity has been used to characterize texts (both written and spoken), learning material, tasks, cultural artifacts, multimedia products, forms of assessment, and even types of teachers and audiences (Buendgens-Kosten, 2014). With these characterizations in mind, I will in this thesis focus on written texts (mostly articles) found on the Internet that have not been adjusted

for educational purposes, or re-written into simplified versions to match a particular level or foreign speaker. According to Buendgens-Kosten (2013), one can distinguish between three domains of authentic claims that are essential to texts in a CALL[10] context: authenticity through language (linguistic authenticity), authenticity through origin (cultural authenticity) and authenticity through daily life (functional authenticity) (2013). This means that in the when students are searching for articles to curate, they can come across texts with all of these three characterizations of authenticity, and consequently not adapted for ESL learners. There is neither a guarantee that the texts the students choose to read are written by native English speakers. However, it is my argument that this does not make the digital reading *experience* less authentic. Nonetheless, authenticity in the 'age of ICT' is an important, yet critically debated notion, as it can be applied to various contexts and aspects of language learning. I will not pursuit this issue further, but for the purpose of this thesis accept these distinctions and understanding of authenticity as interesting and relevant to keep in mind.

One of the positive aspects of finding texts to read from the Internet is the variety of available material. The text can be topical and up to date, as well as quick and easy to find. The reader can also choose a text based on their existing knowledge and build upon that (Case, 2012). The reader will also have easy access to digital translation tools, and can instantly compare and evaluate different text about the same issue. By being able to choose for themselves, the students might also be able to get a sense of achievement and confidence in their own study technique. They can choose to read what captures their interest, and at the same time read something in the target language.

There are also several possible challenges with reading texts from the Internet. Firstly, the students may run into technical difficulties, or challenges related to the practical act of reading. When reading traditional printed text, students have a basic understanding of how the reading process works: reading from left to right, from the top to the bottom, and the pages are turned left to right (Johnson, 2014, p.5). Therefore, electronic texts may present particular challenges to comprehension. They will not be especially adapted for ESL learners (linguistic authenticity), and can contain complex vocabulary further than the learner's ZPD, as well as of greater length than those found in their textbooks. They can also be challenging because of the non-linear nature of hypertexts and the issue of separating the content itself from the way it is displayed. On the other hand, the students' reading experience will always be influenced

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by their cognitive abilities, motivation, knowledge and previous reading experiences. One of the main challenges lies in the fact that they have to determine the quality of the text they read instantly, as well as being critical to the origin of the source of the text. This is important, because the learner's understanding of a given topic will at all times be either confirmed, questioned or contradicted in the light of new material (Kern et al., 2004).

Furthermore, it is interesting to note that previous research on *online reading as an individual and social practice* has shown that students on upper secondary school more frequently evaluate the *relevance* of digital information rather than the credibility, in both individual and collaborative reading situations (Kiili, 2012). It may also be easy for the students to lose focus, as a variety of other interesting web pages are only a few clicks away. The challenge is therefore to be able to focus on the chosen digital text, and not wander off into the World Wide Web. This brings us back to Rheingold's *five fundamental literacies* presented in section 2.1.2, with the skills *crap detection, attention* and *network smarts* in particular. Rheingold's term *infotention* is also relevant here, as he points out that "bad info isn't the only daily hazard for the mindful digital citizen. There's also the issue of too much information, too quickly" (Rheingold, 2012, p.96). I will unfortunately not be able to explore the aspects of *attention* or *infotention* to a great extent in this thesis, but these fundamental literacies have been included to acknowledge that the teacher will need to keep in mind when introducing digital curation to his or her students. As Krokan (2012) points out: one of the most important challenges we are facing in schools today are in fact figuring out how we are going to deal with the constant stream of interruptions created by social media (2012, p.103) I will return to some of these perspectives in the discussion.

Consequently, we can see that there are several complex aspects of digital curation, which furthermore is closely connected to working with digital tools, computers and the Internet in the classroom in general. There are many aspects to consider as a teacher when allowing your students to search for their own sources on the Internet. Digital environments require readers to take a much more active role in their reading process, which perhaps not all students are ready for. To use Brown (2005)'s *navigationism* term: it can be challenging for the students to "navigate in an ocean of knowledge". Then again, how are they going to become prepared for digital reading if they are not taught so and given the necessary tools in school? We might be able to agree upon the fact that even though there are many challenges, it does not mean that

we should avoid introducing digital curation as an approach in our classrooms. It simply means that they need to be taken into consideration.

2.3.2 Digital and connective writing

Many believe that the reciprocal nature of the read/write web, or the Web 2.0, has created new genres of writing. One of these people is Will Richardson, a lead thinker and writer about the intersection of social online learning networks and education (Richardson, 2012). He has termed this intersection *connective writing*, where his main point is that the collaboration between the reader and the writer fundamentally changes the way the readers and writers view themselves. Digital writing can thereby be understood as both a *way* of writing, and writing linked to a particular digital *purpose* or *context*. According to Richardson, students who compose online learn to:

- Read critically, because, as they read, they look for important ideas to write about
- Think critically because as they consider the audience and clarify the purpose of the writing, evaluate and synthesize information across multiple sources, and find and articulate relevance of connections to include or link to
- Make editorial decisions such as finding and identifying accurate and trustworthy sources of information and correctness of writing
- Anticipate the responses of those who read their writings

(Richardson, 2010, in Johnson, 2014, p.12).

This means that writing and communication online can change how the students see themselves as readers and writers, as they are no longer passive recipients of information, but active creators and distributors of knowledge. Although there are other digital forms of writing such as blogging and e-mailing that provides opportunities for writing longer texts, Richardson's focus on connective writing is also relevant for the writing that can take place as a part of content curation. On Scoop.it the curators are asked to provide their *insights* to their curated resources, as mentioned in the introduction (chapter 1). An insight can be of various lengths, and it is up to the curator himself to determine the content of these. The main idea is that the curator should present his or her understanding of the curated resource, perhaps give a brief summary, and present own reflections inspired by the scoop. This means that the insight-comment is closely linked to the given authentic article or video, and cannot be separated from a digital context. Digital writing is thereby more than just a skill. It is a means

of interfacing with ideas and with the world, a mode of thinking and a channel for expressing their thoughts (National Council of Teachers of English, 2014).

However, as the digital curation texts, or insight-comments, are linked to a digital source, the insights become a form of *hypertext*. One of the main characteristics with hypertexts is that they break with the principles of linear and sequences texts where the paragraphs and chapters are structured in a specific manner (Iversen & Otnes, 2009). That is to say: the insight-comment in it self might be linear, but it refers to another text or multimedia source, and is thereby also connected to its original source by hyperlinks. *Multimodality* and *interactivity* are also two significant characteristics here (Schwebs & Otnes, 2006, p.97). Multimodal texts refers to texts that include the combination of two or more communication modes, for example print, images, spoken text or video clips. With regards to digital curation, multimodality will apply to the different curated resources, which can be everything from newspaper articles and pictures to YouTube-clips combined with an insight-comment. Interactivity will in this context mostly refer to social interactivity that takes place between the curators and the sharing and commenting aspects of social networking. It should also be noted that this interactivity, writing insights and comments takes place on an open digital curation platform. This means that the curator's texts can be read by anyone anywhere at all times, and which is an issue I will return to in the discussion in chapter 5.

Writing insights and commenting on other curators' scoops is an essential part of being a digital curator. The writing process is influenced by the characteristics of hypertexts, multimodality and interactivity, and thereby means that you have to *use* the approaches to reading and writing that the content curation tool provides, and not simply write a short text that happens to be digitally available. Consequently, we can see that writing digitally and online has challenged how we understand texts in general, and writing as a skill in particular.

2.4 Perspectives for the Analysis

In order to say something about the students' possible educational benefits from reading, writing and working with digital curation, it is also relevant to reflect upon a few additional didactical perspectives. I will therefore in the following draw upon the well-established model of Bloom's Taxonomy and the Norwegian National Curriculum (LK06). These two perspectives will furthermore provide significant guidelines for my analysis in chapter 4 and the discussion in chapter 5.

2.4.1 Digital curation and Bloom's Taxonomy

The Taxonomy of Educational Objectives is a framework for classifying statements of what we expect or intend students to learn as a result of instruction (Anderson, Bloom, & Sosniak, 1994). The original Taxonomy from 1959 was created by Benjamin S. Bloom and provided six categories of cognitive domains: (1) *Knowledge,* (2) *Comprehension,* (3) *Application,* (4) *Analysis,* (5) *Synthesis* and (6) *Evaluation.* Bloom saw this Taxonomy as not only a measurement tool, but also as a common language about learning goals and as a mean for determining the congruence of educational objectives, activities and assessment (Krathwohl, 2002, p.212). The aim is to achieve a higher order of thinking, and Bloom has influenced school systems and national curriculums all over the world. However, as the original model was created almost sixty years ago, it has been adapted and revised several times. In 2001, David Krathwohl and a student of Bloom's, Lorin Anderson, presented their revised version, which were to reflect the relevance to 21st century work. The most significant difference between the original Taxonomy and the new is how the new version intersects the different types and levels of knowledge. The Revised Taxonomy is therefore based on a broader vision of learning that includes a cognitive aspect, categorized as factual, conceptual, procedural and metacognitive knowledge. It has consequently been recognized as an improved taxonomy that also includes a significant cognitive domain. The different levels are defined in this manner: (1) *Remembering*: Retrieving relevant knowledge from long-term memory, (2) *Understanding*: Determining the meaning of instructional messages, including oral, written, and graphical communication, (3) *Applying*: Carrying out or using a procedure in a given situation. (4) *Analyzing*: Breaking material into its constituent parts and detecting how the parts relate to one another and to an overall structure or purpose, (5) *Evaluating*: Making judgments based on criteria and standards, and (6) *Creating*: Putting elements together to form a novel, coherent whole or make an original product (Anderson & Krathwohl, 2001).

In the recent years, taxonomic models that also add a digital perspective have emerged. Even though Bloom's Taxonomy model was developed long before the digital aspects came into the picture, it still is a recognized model for assessing higher levels of thinking that also provides valuable perspectives on digital literacy. This development has inspired me to try to find out how a digital Taxonomy can be used to explore student understanding and experience of digital curation. As there are several figures that illustrate the revised taxonomy and the

added digital focus, I have chosen to present two of these in a table that combines Anderson & Krathwohl (2001)'s verbs and descriptions with Churches' (2009) digital actions.

Table 2.1: Digital literacy and taxonomic levels

Revised Taxonomic levels (Anderson & Krathwohl, 2001)	**Digital skills at different taxonomic levels (Churches, 2009)**
(6) Creating Generating, planning, producing	Designing, constructing, planning, inventing, devising, making, programming, filming, animating, blogging, video blogging, mixing, remixing, Wiki-ing, publishing, video casting, podcasting, directing/producing, building or compiling mash-ups
(5) Evaluating Checking, critiquing	Checking, hypothesizing, critiquing, experimenting, judging, testing, detecting, monitoring, commenting, reviewing, posting, moderating, collaborating, networking, reflecting, product testing, validating
(4) Analyzing Differentiating, organizing, attributing	Comparing, organizing, deconstructing, attributing, outlining, structuring, integrating, mashing, linking, reverse-engineering, cracking, media clipping and mind-mapping
(3) Applying Executing, implementing	Implementing, carrying out, using, loading, playing, operating, hacking, uploading, sharing, editing
(2) Understanding Interpreting, exemplifying, classifying, summarizing, inferring, comparing, explaining	Interpreting, summarizing, inferring, paraphrasing, classifying, comparing, explaining, exemplifying, advanced searches, Boolean searches, Blog journaling, Twittering, categorizing and tagging, commenting, annotating, subscribing.
(1) Remembering Recognizing, recalling	Recognizing, listing, describing, identifying, retrieving, naming, locating, finding, bullet pointing, highlighting, bookmarking, social networking, social bookmarking, favoriting/local bookmarking, searching, googling

As illustrated in table 2.1, there are several actions that can take place in a digital environment at different taxonomic levels. Many of these verbs are also relevant for various steps of the content curation process. Part one of my analysis in chapter 4 is as a result inspired by this, and will focus on the verbs used by the students in the survey. The taxonomic levels will however not be used directly in the analysis, but provide the foundation for a general understanding, and be furthermore recaptured and actively used in the discussion (chapter 5).

2.4.2 Digital curation and the National Curriculum

In order to recognize digital curation ‘s potential as an approach to promote literacy in upper secondary school, it is necessary to look to the National Curriculum, the Norwegian Knowledge Promotion of 2006, for support (Churches, 2009). When the emphasis is on literacy, the three basic skills of reading, writing and digital skills stand out. That is not to say that practicing oral skills or mathematics skills could not be a continuum of digital curation, but these skills will not be of significance in this study. As mentioned in the introduction (section 1.1.1), there were also several competence aims for the course *International English* that were of significance in this project. Even though they will not be emphasized in this thesis, striving to fulfill competence aims outlined by the National Curriculum will be the starting point of all teaching that takes place. As the main topic for this period was *Multiculturalism*, competence aims such as being able to “discuss different aspects of multicultural societies in the English speaking world” and “discuss some international and global challenges” were of importance (Utdanningsdirektoratet, 2006b). In addition, being able to “use digital tools in an independent, critical and creative manner to retrieve information, and communicate and present own material” are relevant competence aims that can be promoted through a project such as this study. Note how the verbs are of significance in the National Curriculum as well, which supports the previous connections made to Bloom and the verbs in the Taxonomy. It should also be noted that in this thesis, I will mostly refer to *skills* in stead of *competencies*, as the term *skills* is used by both Anderson & Krathwohl (2001) and Churches (2009), as well as used to refer to the basic skills in English in the LK06.

The National Curriculum (LK06) describes *digital skills* as “being able to use a varied selection of digital tools, media and resources to assist in language learning, to communicate in English and to acquire relevant knowledge” (Utdanningsdirektoratet, 2006a). Scoop.it can be an example of a digital tool and be a resource where the student can collect material to gain knowledge about a given topic. They can also communicate with other digital curators through rescooping and commenting on their scoops. When working with digital curation, the students are in addition given the opportunity to experience English texts in authentic situations, which is considered a valuable part of both reading and promoting the digital skills. It is particularly interesting to note that the LK06 points out that the development of digital skills also involves “gathering and processing information to create different kinds of

texts" and "having a critical and independent attitude to the use of sources". To gather and process information is an essential part of curation, and as the stream of information can at times seem overwhelming. Therefore, the critical and independent attitude towards the resources the curator collects and shares become even more important. Consequently, these aspects became highly relevant to pursue further in this study.

Experiencing English texts in authentic situations are furthermore closely connected to *reading* as a basic skill, which the LK06 defines as "the ability to create meaning by reading different types of texts" (Utdanningsdirektoratet, 2006a). This is specified to include understanding, reflecting on and acquiring insight and knowledge across cultural borders and within specific fields of study. With regards to this study, Scoop.it provides a platform where the students can find, read and curate texts that can give them insights on a variety of topics. It is also particularly interesting to note the use of the term "insight", as this is in fact what Scoop.it encourages their curators to provide in accompany with a curated resource. This also implies the need to use appropriate strategies when reading these texts, in order to "understand, explore, discuss, learn from and reflect upon different types of information" (ibid). Reading thereby becomes a prerequisite for the next step of the curation process: to write an insight-comment.

The *writing* that takes place on a digital curation platform like Scoop.it is writing your insights on the article you have just read, or the video you have seen. Here, the students have the opportunity to communicate their views with an authentic audience, and as the LK06 points out: "express ideas and opinions in an understandable and purposeful manner using written English" (ibid). Writing can thereby be a tool for language learning, as writing insight-comments also requires the student to try to use "informal and formal language that is suited to the objective and recipient". It is difficult to know who the recipient actually is when writing openly online, but it can however be argued that this in fact requires a reflection of what it means to be a participant in online communities and the level of formalities that this requires. As a result, these three areas of basic skills in English will serve as main categories when approaching my material in part two of the analysis. More specifically *how* this table will be used will be presented in the method of analysis in section 3.3, and furthermore revisited and developed in part 4.2 for the actual analysis of my interview material.

Table 2.2: Digital curation and the LK06 (main categories for the analysis part 2)

Main category:	Support for digital curation in the LK06:
Digital skills	Use a varied selection of digital tools, media and resources to assist in language learning, to communicate in English, and to acquire knowledge.
Reading skills	Create meaning by reading different types of text for different reasons and of varying lengths and complexities. Understand, reflect on and acquire insight and knowledge across cultural borders and within specific fields of study. Understand, explore, discuss, learn from and to reflect upon different types of information.
Writing skills	Express ideas and opinions in an understandable and purposeful manner. Plan texts that communicate, use writing as a tool for language learning, and use informal and formal language that is suited to the objective and recipient.

2.5 Chapter Summary

In this chapter, I have presented and discussed the significance of new literacies in the 21st century. Furthermore, connectivism has been presented to support established learning theories, and is based on understanding learning as something distributed across networks of people and technology. I have also presented an understanding digital curation in general, Scoop.it as a digital tool, as well as how this approach can support a network-based learning process. The positive as well as challenging aspects of reading authentic texts online was furthermore reflected upon, before I presented what characterizes writing in a digital context, defined what an insight-comment is, and why connective writing is of significance in a digital curation project like my study. Finally, I have presented Bloom's Revised Taxonomy and the National Curriculum as important both the analysis and the discussion of my material. In total, this chapter establishes a theoretical framing for my methods of analysis as well as a foundation for the discussion in chapter 5.

3. Methods and material

Methodology is concerned with the process of collecting, analyzing and interpreting empirical material (Johannessen, Tufte, & Christoffersen, 2010, p.29). The choice of research methods is thereby highly relevant in any research project, from the very beginning to the end of the process. As a result, this chapter has the intention of clarifying the choices I have made regarding my own research approaches in this study. To do this, I will in the first section (1) discuss aspects related to the chosen research design with a focus on qualitative methods and the project outline. Secondly, I will address (2) the process of data collection, and present an overview of the collected material. Furthermore, I will also (3) present my methods of analysis, (4) address some ethical reflections, and discuss (5) the projects' reliability and validity towards the end.

3.1 Research Design

Research design deals with clarifying *what* and *who* should be explored, and *how* the research should be conducted (Johannessen et al., 2010, p.73). The "what" aspect has to this point been presented in the introduction, where I have presented my background for choosing the topic digital curation, and this has been further elaborated on in chapter two. The following chapter will therefore deal with the "who" and "how". As I am mainly concerned with *how* digital curation can be a purposeful didactical approach, and the students' *experiences* in my research questions, I found qualitative methods the most appropriate for my studies.

3.1.1 Qualitative methods

Qualitative methods are common within the field of social sciences, and are considered useful for gaining in-depth understanding of human behavior and attitudes (Leseth & Tellmann, 2014, p.11). Qualitative methods thereby investigates the *why* and *how*, and can be exemplified through a for instance case study, which also characterizes my study. In a research project it is however not uncommon to combine different methods. Such method triangulation can be defined as the utilization of two or more different methods to meet the aims of a research, and usually refers to combining both qualitative and quantitative methods (Johannessen et al., 2010). However, it does not have to be restricted to this combination, as it may include a mix of methods such as observation, survey and interviews, which is the

combination I have chosen for my research project. This is because I believe several qualitative approaches to my field of study can provide a broader foundation for my data collection and thick descriptions to support the project´s validity (Repstad, 2007, p.29). Furthermore, in addition to the chosen approach, the choice of informants will be highly significant for the gained results. In my case, this turned out to be partly planned and partly coincidental.

3.1.2 Finding informants

After deciding to study an aspect of promoting digital skills in the ESL classroom, I began searching for a teacher who was particularly interested in teaching with technology. Through a colleague of mine, I was directed towards a teacher at an upper secondary school in Sør-Trøndelag county, who was not only engaged in new forms of language teaching, but who also had previous experiences with digital curation. I also considered it to be positive that this teacher worked at a different upper secondary school than I do myself, in order to strive for fewer preconceptions and "blank sheets". Contact was quickly established, and luckily this teacher was positive to join my project. His students in an International English course became the selected group of students for the research project, and consisted of 22 students between 17 and 18 years of age. This teacher has been teaching English in upper secondary school for ten years, and is teaching the International English course for the seventh time. This told me that he was an experienced language teacher, and he also had many ideas on how to approach the project. As previously touched upon in the introduction, there are several reasons why Scoop.it turned out to be the chosen digital curation tool for this study. One of the main reasons was that the teacher had previous knowledge of Scoop.it, and had used this tool in a semester last school year. I considered this valuable in order for him to feel comfortable when introducing digital curation to his students. As presented in the introduction (section 1.2), I also found Scoop.it to provide an appropriate combination of pictures and text, so the students could focus on learning content curation as well as focus on reading and writing to learn more about the topic of *Multiculturalism*.

3.1.3 The lesson plan and my role as a researcher

My role as a researcher was to be an observer in the classroom. Therefore, it was important for me that the teacher should make most of the decisions, and conduct his teaching as usual. This means that even though we planned the period outline together, the research project

cannot be characterized as action science research, as this is characterized by a higher degree of researcher involvement (Repstad, 2007). Before the project started, we had two meetings where the aim was to create a time frame for the period, and discuss what should be the student´s intended learning outcome. In accordance with the competence aims of *International English*, the topic of the period was *multiculturalism* and the class was going to work with this topic for a period of 5 weeks. Digital curation was here going to be included as to learn about this topic, and in this manner, Scoop.it was to be used as a means to an end, and not to teach isolated technical or tool-specific skills. As a result, the lesson outline and the project design goes hand in hand. To illustrate this, I have chosen to present the outline in a table, as I believe this provides an overview with the most significant details. This is because the emphasis in this thesis is the students' experiences and reflections of digital curation, and not multiculturalism or Scoop.it in particular. As a result, you can here see a table that shows how the project design was conducted in practice.

Table 3.1: Lesson design and project outline

Week:	Focus:	Comment:
1	**Introduction to the topic: "Multiculturalism"**	The students were introduced to the topic by the teacher and started working on different aspects of "multiculturalism", such as the challenges and benefits of a multicultural society.
2	**Introduction to digital curation and Scoop.it as a tool**	The teacher introduced the tool by a brief lecture on what curation is and how multicultural topics could function as a publisher agenda. The students were then divided into five groups, and were given different focus areas for the period. These areas were multiculturalism in (1) the UK, (2) the US, (3) Canada, (4) Australia and (5) in literature and movies
3	**Further topic-work**	The students were given the task to scoop at least two articles by their teacher, and comment upon these scoops as homework. The class then discussed in groups what these comments should contain, and how they would define a so-called insight-comment. Furthermore, they continued reading articles on Scoop.it linked to their topic, and commented on their findings. At this point, the students had all created their own Scoop.it account and curated a variety of articles and commented upon them.
4	**Assessment situation:** **Group talk**	The original groups were mixed by the teacher and put together in new groups of five students with five different topics. Each group was then given 20 minutes to discuss and present their views in a group conversation. The emphasis here was to use what they had found in the research and digital curation period to show content knowledge as well as language and communicative competences.

During the first three weeks, the students had one double-lesson where they only worked with their topic in general, and two double-lessons where they also worked with Scoop.it and digital curation. It should be noted that in this table the week numbers refer to stages in the project, and not the week numbers from an actual calendar, as the project took place in November and December 2014.

3.2 Collecting Data

Both the general research design and methods of collecting data is highly relevant for the results of any inquiry. The choice of informants and how the data was collected is highly relevant for the results of any inquiry (Johannessen et al., 2010). As presented in table 3.1, my data was collected over a period of four weeks at different stages of the Scoop.it project. By observing the teacher and students in the classroom and conducting a brief digital survey, I was able to collect valuable information about the students work process, and gain an overall understanding through my field notes. To dig deeper into their experiences, I collected material through interviewing 4 students after the project was finished, where their insight-comments played an important part as authentic student text samples.

Figure 3.1: The process of collecting data

As illustrated in the figure, one step in the collection process leads to sharpening the focus in the next. These steps of data collection will be further elaborated upon in the following paragraphs, in order to strive for a high level of clarity and transparency of my research process. The projects reliability and validity however, will more specifically be discussed in section 3.5.

3.2.1 Observations

As presented in the lesson design and project outline (table 3.1), I chose to observe the teacher and his students over a period of 4 weeks. Observation is said to be the most effective way to see what people do and hear what people say, and I thereby found it appropriate to explore what was being said and done in the classroom (Johannessen et al., 2010, p.117). I chose an open observation, yet remained passive, in order to let the teacher preform his teaching as

usual for an authentic classroom-situation. This was done because I believed observation would give me valuable information of digital curation as a didactical approach, as well as a front-row experience of the students' reactions along the way. In total, I observed three double-lessons in the classroom, where one of these was the group talk and assessment situation. During these observations I did not use sound or video recording, as the main purpose of this data collection was to get an overall impression of student experiences in the process. Instead, I made notes from these three classroom visits, both during the observation and right after, where the documentation was based on my own thoughts and observations from my seat at the back of the classroom. As a result, the observation was both the first step and an important step of getting to know the project and the students' initial responses to digital curation.

3.2.2 Survey

In order to learn even more about the overall experiences among the students, I conducted a short and anonymous survey on It's Learning - the student's virtual learning platform. This survey consisted of seven open-ended questions about the students' understanding of Scoop.it, their first impressions of its educational possibilities and their opinions regarding digital curation in general (Appendix 3a). Surveys or questionnaires are often considered to be of quantitative design, but open-ended questions in shorter questionnaires can also be considered qualitative, and is a common form in for instance case studies. These type of questions can be divided into three categories: knowledge based, action based and opinion based (Johannessen et al., 2010). In my case study, I was mainly concerned with opinion-based questions, in order to get to know more about the students' perceptions of Scoop.it and digital curation in the beginning of the project (see Appendix 3a). I also found it valuable to check for student-perception with a few knowledge-based questions as well, with a question like this: "In your own words, what is the purpose of Scoop.it?" Here I believe that their understanding of what the purpose of Scoop.it is would reflect both their tool competencies and their own perception of digital curation. Yet, I was aware that they might come to use the definition presented either by their teacher or on the Scoop.it web-page, but I tried to avoid this by adding "in your own words" to the question formulation. The survey provided me with written feedback from 22 respondents, and gave me important information on how the students experienced being introduced to digital curation and Scoop.it as a tool (Appendix 3b). The responses were given anonymously, as this part of the material aimed to represent

the entire class, and not a selection of students in particular. Regardless, the students' responses to this survey became an important asset for me in order to create relevant questions for the interviews, understand the content on their Scoop.it page, and to give further guidance in the research

3.2.3 Interviews

A qualitative interview aims to understand a phenomenon from the perspectives of a selection of informants (Kvale & Brinkmann, 2009, p.21). Consequently, I found interviews to be a valuable approach to get more in-depth knowledge. I conducted 4 individual student-interviews, where the emphasis was on asking them ask them about digital curation, reading authentic texts and writing insight-comments (see interview guide, appendix 4). These four students were selected based on recommendations from the teacher on who would most likely provide interesting and relevant responses to my questions, as well as from an examination of the students' Scoop.it pages. In this manner, my selection of students was made partly as a result of studying which accounts had the most curated resources and insight-comments, and based on suggestions from the teacher. This is called a strategic selection of informants, and is common in qualitative studies to ensure informants that can provide valuable and useful information to the research topic (Leseth & Tellmann, 2014, p.54). In addition, even though it was not a part of my main material, I also interviewed the teacher in order to gain his perspectives on the entire project, on what could have been done differently and how digital curation can be used in a future context (see interview guide, appendix 5). For all of these five interviews, I chose a semi-structured form, which is the most commonly used form in qualitative research (Johannessen et al., 2010). The semi-structured interview is a mainly open interview-form that allows new ideas to be discussed within a given framework of topics. I believe this is in keeping with my research question, as an open interview could be too unfocused and prevent me from staying on track, while a structured interview might be too pre-dominated and prevent me from following up on new ideas along the way.

The interviews took place in the same school where they all attend or work, in order to avoid travel time and extra efforts for my informants. I believe it was positive for the informants that the interviews were conducted in a familiar setting in order for the conversations to be as natural as possible. The interviews all went as planned regarding the set time limit, which was between 25-40 minutes, and were recorded by audio files and transcribed into text afterwards (see interview guide, appendix 4). The transcribed material is therefore mainly in Norwegian,

in order to keep the data as close to the original statements as possible. However, the quotations used in the analysis and discussion chapters have been translated into English, to be more in keeping with the written language of this thesis. In these cases I have tried to translate the sentences into the closest possible English version. And the students were also given pseudonyms in the transcribed interviews and other collected material in order to secure their anonymity. Body language has not been regarded as significant in this study.

3.2.4 Insight-comments from the students' Scoop.it pages

In addition to interviewing the students about the process of digital curation and writing, I found it valuable to look at their actual Scoop.it pages and written insight-comments as well. When studying and analyzing students' writing skills, collecting actual samples of text are of great value, in order to study what they say they do, as well as what they actually do. An important part of my data is therefore the short texts referred to as "insight-comments" collected from the students Scoop.it pages. The students wrote these texts as a comment on their curated articles or video clips, and aims to give the reader information about the curated topic and the curators thought on the matter. To illustrate, I have chosen to recapture a figure previously seen in the introduction, which illustrates what a Scoop.it page can look like:

Figure 3.2: A visualization of a Scoop.it page

As previously mentioned in the introduction, you can on a digital curator's Scoop.it page find *information about the curator* such as his or her name, see a topic headline and information about his or her community. You will also find a list of the *collected resources*, which can be

texts, pictures and video clips. Furthermore, below each of these, you can see a commentary box where the curator can comment on the resource, and provide their *insights*. Depending on the student, and possible other factors of which I will return to in the analysis, these texts were of a variety of length, from one word to 160 words, where the latter appeared to be more common among the students in this study. When locating all the students' Scoop.it pages online, I had access to all their curated topics and written texts. Unfortunately, I could not study all of these 22 pages, 55 curated resources and 42 insight-comments, as it would be too extensive for this thesis. Therefore, I chose to focus on the 8 curated resources and 7 insight-comments made by the four interviewed students. Even though these text samples are openly available online, I asked all of the students for permission to use them in this study. This will be further explained and discussed in section 3.4, where I will also raise the issue of anonymity in the light of collecting empirical material from open online websites.

3.2.5 Material overview

As touched upon in the previous sections, much of the data emerged as a result of the previous step of the data collection process. This means that every step in this research will reflect choices made by emphasizing some parts of the material as more significant than others, or being necessary choices made to narrow down the material for further research. As pointed out by Johannessen, et.al, all research will in one way or the other be based on selection, from choosing a situation or topic to explore, what data to register, how to analyze and finally how to interpret the material (p.39). During my research project, I found myself fortunate to have access to a great amount of empirical material. Ideally, I would have liked to have the time to study all parts of the available sources, to be able to present an extensive case study of digital curation. However, I had to find a focus, and consequently select parts of the material as my core empirical data.

Table 3.2: The selected material

	Observations	**Survey responses**	**Scoop.it accounts**	**Interviews**	**Insight-comments**
Available material	4 documented observations (notes)	22	22	4 students 1 teacher	41
Selected material:	Only as support	22	4	5	7

As summarized in this table, I had four documented observations that were used mainly as support to understand the rest of the material and the entire project. I had access to 22 responses through the digital survey on It's Learning, and I used all of these to look for verbs that could describe the students' understanding of digital curation (see Appendix 3b). Furthermore, I had access to all of their Scoop.it pages through adding them in my own community, though I chose to focus on the four belonging to the students I interviewed. In addition, I interviewed the teacher, which meant that I conducted 5 interviews in total. I also chose to focus on the insight-comments written by the same four interviewed students, even though I had access to all of the 41 available insights from all of the 22 students' Scoop.it pages. This choice was made in order to make an extensive material more manageable, and to get more in-depth knowledge about the four interviewed students. Although this is a simplified presentation, the selection can be illustrated in the figure below:

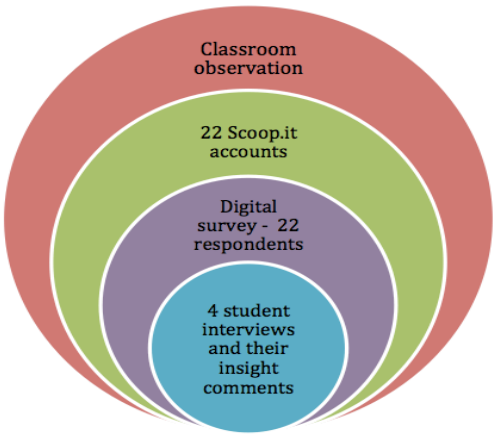

Figure 3.3: From classroom observation to insight-comments[11]

This figure is a development of figure 3.2, and sums up the different layers of empirical data and how they are framed by each other. As illustrated, the four interviewed students (in the blue circle) were also respondents to the anonymous survey (purple circle), and all of these students were furthermore the 22 digital curators with their own Scoop.it accounts (green circle). Consequently, these same students were also present in the classroom during the observations, which make up the red circle and the starting point for all the data collection that took place.

[11] The teacher-interview has not been included, as my focus in this research is mainly on the student

3.3 Methods of Analysis

As my research is concerned with student perception and experience, I found a *content analysis* beneficial to find answers to my research questions. This approach is common in phenomenological designs, and emphasizes the interpretation of the informants thoughts and utterings in order to find a deeper meaning (Johannessen et al., 2010, p.173). A content analysis can be both quantitative and qualitative, and this also turned out to be suitable, as I have divided my material into two main parts. Part one consists of the survey, and will be analyzed according to quantitative content analysis ideals (Bratberg, 2014). Part two is a combination of the interviews and the insight-comments, and will follow the main steps of a qualitative content analysis (Malterud, 2003, in Johannessen et al., 2010).

3.3.1 Digital survey and quantitative content analysis

A quantitative content analysis is a research technique for "compiling and describing the content in a text based on quantitative aims" (My translation, Bratberg, 2014, p.84). This method of analysis utilizes a variety of tools and methods, and is based on the assumption that frequency of the written words and phrases can reflect important aspects of a variety of texts and topics. In this manner, a quantitative content analysis has much in common with statistical analysis, as it is concerned with systematically and objectively identifying specified characteristics. In keeping with these ideals for analysis, I approached my collected survey material by systematically identifying all the verbs used by the students in their responses, highlighted them, and secondly isolated those I viewed as relevant action verbs (see Appendix 3b). The verbs thereby became the recording units, which is the part of the content analysis that is to be coded and classified (Bratberg, 2014). This means that I searched for the verbs that could tell me something about the students' understanding of the *actions* of digital curation, and the frequency of these. The verbs were therefore counted, and put into a table that could be developed into a figure, which will be included in the analysis chapter (section 4.1.2). Furthermore, I found it useful to reflect upon the verb results in the light of Bloom's Revised Taxonomy, which will be relevant for part 1 of the analysis, but mostly for the discussion in chapter 5, in order to find answers to my research questions. However, it can be argued that a singular quantitative approach to a content analysis can only explore the respondents from a distance (Binsbergen, 2013). It is therefore not uncommon to also conduct a *qualitative* content analysis. Because of this, I chose to triangulate both my data collection methods, and my methods of analysis.

3.3.2 Interviews and qualitative content analysis

In order to analyze the interviews, I followed the steps of a qualitative phenomenological content analysis (Malterud, 2003, in Johannessen et al., 2010). Firstly, I coded the transcribed material based on the three main categories from the LK06, as seen in the theoretical framing: *digital skills, reading skills* and *writing skills*. This is in keeping with a deductive approach to for exploring the research material. Furthermore, as I searched through my material with colored markers and making notes in the margins, several sub-categories emerged. This is in keeping with an inductive approach to research material. In this first phase, it was important for me to keep the research questions in mind, in order to separate relevant and irrelevant information. In the next phase, meaning condensation played an essential part, and has been a key process in developing sub-categories. In order to illustrate this process, I have included a table below with an extract from one of the interviews to show how the sub-categories emerged:

Table 3.3: Analyzing transcribed interviews (extract, Mia)

Transcribed material **Main category: Reading skills** (*Deductive approach*)	**Condensation**	**The emerge of sub-categories** *(Inductive approach*)
Researcher: "What did you think about the level of complexity of the articles you chose to read?" Student Mia: "I thought they were all right. I had to read some of them several times to catch the content though. Some of them were from English web pages, so it was not so easy to understand everything. And also, many of them were quite long." Researcher: "So does that make it different, to read articles online compared to texts from your textbook?" Student Mia: "Yes, because the textbook is sort of meant for *you* and that *you* are supposed to read it. It is meant for school and for learning. While on Scoop…or, you find the articles on different web pages. They are not necessarily meant for learning or school. Then it becomes… I don't know… more close to reality. And not something you only do in school, but something more real. (…) I think that's positive. It might become more difficult, but then you learn more as well."	"They were all right. I had to read some of them several times to catch the content though." "You find the articles (…) not necessarily meant for learning or school. Then it becomes more close to reality." "It might become more difficult, but then you learn more as well."	Reading authentic texts online

In this manner, I proceeded with all the transcribed interviews, where I after reading and re-reading the interviews closely, could place different parts of their statements into 9 different sub-categories, which will be presented in section 4.2.2, as they emerged as a result of the analysis process.. It should also be mentioned that sometimes their quotes could be placed in more than one category. For instance, *reading* on the Internet could be placed in both reading skills and digital skills as the main category. In these cases, I simply had to make a choice, which is a necessity in any phenomenological analysis. I did not experience this as a problem, but as natural, since all conversations are unique and therefore difficult to put in completely separated boxes. Still, in order to distinguish patterns, similarities and differences within the material, I needed to sort the interviews into categories, as presented in table 3.3. As my methods have been established, we are approaching the actual analysis of my collected material. However, before pursuing this matter further, it is relevant to regard the methodological approaches from an ethical and evaluating perspective.

3.4 Ethical Reflections

When conducting a research project, there are quite a few ethical dimensions to consider. One of the demands for ethical research, is as listed by NESH[12], free and informed agreement (NESH, 2006). This means that research should only be conducted after the participants have been thoroughly informed about what they are asked to be a part of, and given their voluntarily consent. Because of this, I found it important that all parties involved were to be thoroughly informed right from the beginning. I started by contacting the principal at the school, and received acceptance to conduct the research project there. The principal received the same document with information about the project that both the teacher and the students were asked to sign (Appendix 2). In keeping with voluntariness as a research ideal, the teacher was asked to emphasize this when asking his students to participate, both in the project in general and in the survey or the interviews. Since the students were all above 15 years of age, there was no need for parental consent when participating in my research project. What one could question in this context, is whether or not the students themselves feel that it actually *is* voluntary to participate, when it is a requested by a teacher. Youngsters are known to feel the obligation to obey authority to a larger degree than adults, so perhaps a request from their teacher will be perceived more as an order (Nilssen, 2012). This is

[12] Den Nasjonale Forskningsetiske komité for Samfunnsvitenskap og Humaniora

probably something we can never know for sure, but as long as the students were given the proper information, and they had agreed to participate, we simply have to accept the situation as it is. I also made sure that all of my informants were fully aware that they could pull out of the project at any time, and there were not any personal aspects involved that should suggest any discomfort for the participating students.

NESH highlights anonymity and confidentiality as essential components of any research. Even though I did not intend to collect any *sensitive information* I reported my project to the Norwegian Social Science Data Services (NSD), just to be on the safe side (see acceptance letter in appendix 1). To strive to maintain my informants' anonymity, I avoided using their real names in the interviews, the transcribed material and in any screen-shots (for example in figure 3.2). No sensitive information was either collected or stored, and the audio files were deleted at the end of my writing process. However, as some of my empirical material, such as the Scoop.it pages including the students' names and insight-comments, is openly available online, the issue of anonymity becomes a bit more complicated. Legally speaking, you do not have to inform or ask for consent from research objects on the Internet (NESH, 2014). Still, the ethical guidelines from NESH points out that out of respect for the participants, one should inform them of systematic collection of data when possible. This was easy to fulfill in my project, as I was already observing the students in their classroom, and thereby had the possibility of giving them all the information they needed, and be open to receive any questions they might have in return. Even though I try my best to make my data anonymous, there is still the possibility of re-tracing the student texts, or insight-comments, by performing a Google search of one of the extracts. Paraphrasing is an opportunity here, but this was difficult for me, as I want to examine actual *authentic* texts written by the students as digital curators. I do not on the other hand find the lack of complete anonymity to be a problem, as the student can delete their Scoop.it account at any time they want to, and their anonymity will consequently be close to complete.

3.5 Research Evaluation

It is common to evaluate the quality of a project at different stages, and thereunder discuss the research design's validity and reliability. These terms have been developed with regards to quantitative research, whereas validity says something about if you have actually been measuring what you set out to measure, and reliability often refers to the tools of

measurements that have been used (Ringdal, 2013, p.96). In qualitative research however, such as this project, the tool is in fact me as a researcher, which makes the reliability and validity more difficult to measure. Consequently, to be completely objective or neutral can therefore be said to be neither possible nor desirable in a qualitative research project. This is because much of the collected data is based on communication, and methods such as observations and interviews will always be dependent on the context (Repstad, 2007). Some qualitative researchers have even dismissed the question of reliability and validity, and argue that these are positivistic terms that will prevent creative and free qualitative research. Other researchers on the other hand, see the terms as something that can be separated from positivist perspectives, and view them as useful to discuss credibility, security and conformability of the research method and collected data (Kvale & Brinkmann, 2009, p.249). For the purpose of this study, we may however be able to agree upon validity and reliability as something relevant to discuss for all research designs, even though a qualitative researchers will always bring their own perspectives into their studies. I will therefore in the following discuss my chosen research designs in the light of academic objectives for reliability and validity.

3.5.1 Reliability

As previously mentioned, reliability involves presenting how a research project is conducted as clearly as possible, so other researchers may conduct the same project and still get the same results through *inter-subjective testability* (Johannessen et al., 2010, p.229). However, research methods that involve people will always be influenced by the context and human interaction. No other classroom would look exactly the same, have the same students with the same experiences, or involve the same moods and settings as the day my inquiries took place. Consequently, my exact research project will be difficult for someone else to copy, regarding setting, time and contextual framing. When recognizing the researcher as a tool, we must also consider the influence previous experiences and knowledge, both for the researcher and the informants, and it is close to impossible to completely leave all pre-assumptions behind in any project. Linked to my own study, this has made me aware of my own role and influence at all stages, especially when making the questions for the survey and interviews. The question of reliability is here related to the way I ask questions that might be perceived as leading. It was important to create as neutral questions as possible, in order for the informant to feel that he or she could answer freely and present their honest opinions and thoughts.

Consequently, closed questionnaires or structured interviews may appear to have the strongest possible reliability. Compared to observation and interview as research methods, a survey can thereby be more standardized and in theory be repeated in a different setting and time in the same manner. However, as my survey had open-ended questions, the response given by the informants will also be influenced by context. Their mood, the setting that day, and perhaps also at what time during the day the questionnaire was presented to them may have influence the students. Here it should be mentioned that the students were given the survey at the end of the lesson before lunch, which may have influenced them into giving short answers if they were eager to have a break. Even though one should aim for high reliability in the process of collecting and analyzing data, too much focus on reliability might prevent creative thinking and variation. With these aspects in mind, I believe was able to find the appropriate balance for a valuable level reliability, both in my research process and my analysis of the collected material.

3.5.2 Validity

We can often say something about validity by asking the question: are you measuring what you think you are measuring (Kvale & Brinkmann, 2009, p.250)? This means that validity searches for the best possible connection between what is to be examined, the data being collected and the interpretation of this collected material. In my project, this refers to how my focus in the observation process, survey and interviews, as well as my analysis of the different material, were linked to my actual research questions. Validity in this context is thereby concerned with *how* both my research procedures and findings reflect the purpose of my study, and can represent reality. Validity can be supported by persistent observation, which I have strived for by conducting three observations in the classroom instead of solely conducting the survey and interviews. It is also difficult to learn something about anything without knowing the context. Here, I believe that my own experience of working as a teacher in upper secondary school became useful, as well as a productive cooperative process with the teacher. Furthermore, examining the topic with different analytical approaches is seen as an advantage to achieve a high level of validity. This is also one of the reasons why I not only wanted to observe the classroom and interview some of the students, but also perform a survey with the entire class.

In order to aim for high validity in my survey, it was important that the questions being asked were relevant for the research questions, so they could provide specific and useful answers

(Johannessen et al., 2010). There can perhaps never be a complete guarantee that the questions will not be misunderstood, and it is difficult to know in advance whether or not the informant will reply in the manner you intended with the question. This is because open-ended questions are not looking for factual information, but people's own opinions and experiences. Another aspect that could influence the validity of the student responses is that they might have answered what they think I want them to answer, instead of writing what they actually believe. In attempt to prevent this, I tried to ask open questions, specifically related to *their* experiences and associations. An example of a leading question can be: "How is Scoop.it useful for you to learn English?" In this question I may actually be leading them into thinking that Scoop.it *should* be considered useful, and that I wanted to know if they have understood how *I* believe it is useful for them. I therefore altered the question into a different phrasing to prevent this: "In your opinion, can Scoop.it be useful for you to learn English? Why/why not?" In the first case, I could in retrospect come to find that I have collected data on how the students *imagine* Scoop.it being useful, and not how they experienced it actually being useful for *them*. In retrospect, I see that I perhaps should have opened up the question a bit more by excluding the specification "to learn *"English"*." Regardless of reflections like this, I still believe the answers given by the students in the survey provided interesting and valuable material for this study, which will be further explored in the following chapters.

3.6 Chapter Summary

In this chapter, I have presented the outline of my research project, and discussed the chosen qualitative and quantitative methods. I have strived for transparency by elaborating upon both my methods for both the data collection and the analysis, and I have elaborated upon my reasons for choosing observation, survey, interviews and text samples as my empirical data. The collected material has also been further presented in order to show what data I had available before going further into the analysis in chapter 4. I recognize that as I have conducted a case study with a strong emphasis on student experiences, and that my exact research will consequently be difficult for someone else to copy. This chapter has therefore attempted to present my methods and material in a clear and transparent manner, in order to strengthen my projects reliability and validity to the best of my abilities.

4. Analysis

The analysis process is concerned with structuring the collected data in order to find a pattern and make the material easier to interpret. As touched upon in the previous chapter, an analysis is however not necessarily a linear process (Repstad, 2007). In a qualitative study like this research project, the analysis is often an ongoing process that starts from the moment the very first data collection is carried out. Even when I selected which students, Scoop.it accounts and insight-comments to focus on, I had to sharpen my focus area in order to find answers to my research questions. As such, making choices becomes a part of all steps within a research project, as the researcher does not only make choices regarding *what* to study and *what* data to collect, but furthermore also *how* this data is to be analyzed and *which* findings that should be emphasized (Johannessen et al., 2010). Based on my research questions, I was looking for a selection of central aspects linked to digital curation: (1) understanding and experiences of being digital curators, (2) possible benefits of developing Personal Learning Networks and (3) digital reading and writing. To find answers, I have chosen two main areas into which I will divide my data. Firstly, I will look at how the students perceive the actions involved in digital curation based on the material collected from the survey, and here focus on student *understanding* of digital curation. Secondly, I will place more emphasis on the individual student's *experiences* as a digital curator based on the material collected from the in-depth interviews, exemplified by their insight-comments.

4.1 Student Understanding of the Act of Digital Curation

The students in the 'International English' class appeared to have their first encounter with digital curation in this research project. Perhaps they had touched upon similar activities before with other digital tools, but limited experience regarding digital curation tools was nonetheless my impression during the first observation in the classroom. Some of the students quickly figured out how to use Scoop.it, while others struggled more with the technical issues in the introductory phase. Questions like: "How do I get followers?" "Where can I find my community?" and "Where am I supposed to write" flourished the classroom. However, once they became familiar with the program, asking them about their first impressions about Scoop.it and digital curation became more interesting than my isolated observations, which is why I conducted the digital survey at an early stage in the project. When analyzing the survey

responses, it could have been interesting to additionally study both the students' *opinions* about Scoop.it, as well as their *feelings* about working in this manner. However, this is not going to be in focus in this part of the analysis. I believe the in-depth interviews are more sufficient for this matter, so the data collected from the survey has been given a different role in my research. It is my belief that the *verbs* the students use to answer the questions about digital curation in the introductory phase, can in fact tell us a lot about their *understanding* of the *act* of digital curation. By the "act of digital curation" I mean what *actions* the students believe is involved when being a digital curator in an educational context. Consequently, verbs are of significance in this context because, as presented in the theoretical framing, Bloom's Revised Taxonomy intersects different types of skills and verbs according to six levels of cognitive dimension (Anderson & Krathwohl, 2001). The emphasis on verbs is furthermore witnessed in the LK06, where the previously mentioned basic skills are described by using verbs such as "*using* a varied selection of digital tools", "*creating* meaning by *reading* different types of texts", "*understanding*, *reflecting* and *acquiring* insights" and "*expressing* ideas and opinions" (Utdanningsdirektoratet, 2006a). The student responses and verbs related to feelings and thoughts will consequently not be included in this part of the analysis, as these aspects will be emphasized when analyzing the interview material.

4.1.1 Survey questions and student responses

Before going further into the presentation of the results and my analysis of these verb results, I will present the seven questions that the students were asked to answer in a table (also see appendix 3a). I have also added a column with an extract from the survey with the answers from one of the respondent to illustrate what type of responses the students provided. For the purpose of this table, I could have chosen any of the 22 respondents to illustrate the survey. I chose respondent nr.9 because this student had included several of the verbs that turned out to be frequently used in many of the students' responses. In order to further illustrate how I approached this material, I have highlighted the verbs I find relevant for digital curation with a yellow "marker." It should also be emphasized that by "relevant verbs" I refer to those who are directly used by the students to describe the act of digital curation, and not to describe the student's feelings or opinions on this process. The responses in the table below are referred to without grammatical or lexical corrections, as I find the authentic material to be the most valuable.

Table 4.1: Extract with questions and responses from the survey

Question	Example: Reply from respondent nr.9
Q1: In your own words, what is Scoop.it?	*Scoop.it is a website where you can find a lot of different articles about a chosen subject.*
Q2: What was your first impression when you were introduced to the program?	*I thought it seemed very interesting and also a good idea for a website. I always struggle with finding relevant and good articles when working with a topic, and when we were introduced to scoop.it I thought "maybe now I finally can stop google-ing after articles"*
Q3: In your own words, what is the purpose of Scoop.it?	*The purpose of scoop.it is to help people find relevant articles so that less people will be misinformed.*
Q4: Do you think Scoop.it can be useful to learn more English? Why/why not?	*Both yes and no. I think it is a great place to find good articles so that we can read and earn[13], but at the same time it is a little messy. It may be hard to find exactly what you are looking for. (BUT! It is just as messy and MUCH harder to find good articles on Google).*
Q5: What do you like about working with Scoop.it?	*It is different from anything we have done before, and it is easy to rescoop something and go back later to read it. This way we can keep searching for information without "losing" the other information we have gathered.*
Q6: Anything you dislike or find challenging? If so, what?	*I found it very hard to go back to Write my Insight.*
Q7: Other comments?	*...no? :)*

Respondent nr.9 appears to experience Scoop.it as a potential valuable source for finding articles and other resources on the Internet. The student stresses that he or she often finds it difficult to search for articles on large search engines such as Google, and therefore found Scoop.it useful as a tool to find resources and as a place to collect information for later use. The student also comments that he or she found the program " a little messy," and that it might also be hard to find "exactly what you are looking for" (R9Q4) [14]. This probably refers to Scoop.it as a tool, connected to the *act* of collecting and saving resources, and not digital curation in general, as digital curation can occur on many platforms. Although the student found Scoop.it "a little messy", he or she still seemed to appreciate the possibilities of saving the articles in order to go back later and read them. I also find it interesting that the student writes that this is something different from anything they have done before, and that he or she

[13] The student has written "earn", but I believe there is the letter "l" missing here. I therefore assume that the student is referring to the possibilities of "reading and *learning,"* and not "reading and *earning,"* as the latter is limited in this educational context. As such, I have registered the verb "learn" in my material.
[14] Student responses from the survey, R9 = Respondent nr.9, Q4 = Question nr.4

appreciated being able to search for new information and still keep track on what he or she have already found. This is also one of the key-elements and advantages of digital curation. Although it would be interesting to examine respondent nr.9 further, as well as the rest of the 22 students, I will not pursue individual students' thoughts and opinions on digital curation further in this particular material. I will however mention a few quotes from the survey in the discussion (section 5.1), and return to a selection of students' individual opinions in part two based on the interviews.

4.1.2 Results that illustrate the actions of digital curation

Objectives that describe intended learning outcomes as a result of instruction, are usually framed in terms of a subject matter of content (noun) and a description of what is to be done with or to that content (verb) (Anderson & Krathwohl, 2001). Consequently, the verb conveys the state of being, an occurrence or an action, and becomes significant when forming the basis for the Cognitive Process dimension. Verbs used in the responses of this survey, were thereby used to either to illustrate their *experience* with Scoop.it as a tool, what they *thought* or *felt* in the process, or what they *understood* as relevant acts of digital curation. This means that all verbs could be relevant to say something about the students' experiences, if referred to in the context of the question and sentence they belonged to. For instance, the verbs "to feel" and "to think" could refer to both positive and negative associations to Scoop.it and digital curation. To explore this further require a very different quantitative approach and qualitative text analysis to this part of my material. I therefore, as mentioned in part 3.3, decided to emphasize the verbs that directly referred to the practical approach and cognitive actions of digital curation. These verbs could also be positively or negatively charged, but regardless of how this student *feels* or *thinks* about digital curation, the verbs still say something about how they *understand* the work process and what it includes. According to my quantitative approach to the verbs in the survey, I found that the students in total used 22 different verbs in their responses that can be considered specifically related to the act of digital curation. These verbs are also illustrated in the word cloud[15] on the front page of this thesis, where the word size is given according to the frequency in which they appeared in the survey material. Out of these 22 different verbs, five of them stood out as the most frequently used. These five are illustrated in the figure below, and will be the focus in the following part of the analysis.

[15] Generated by using the digital tool Wordle (www.wordle.net)

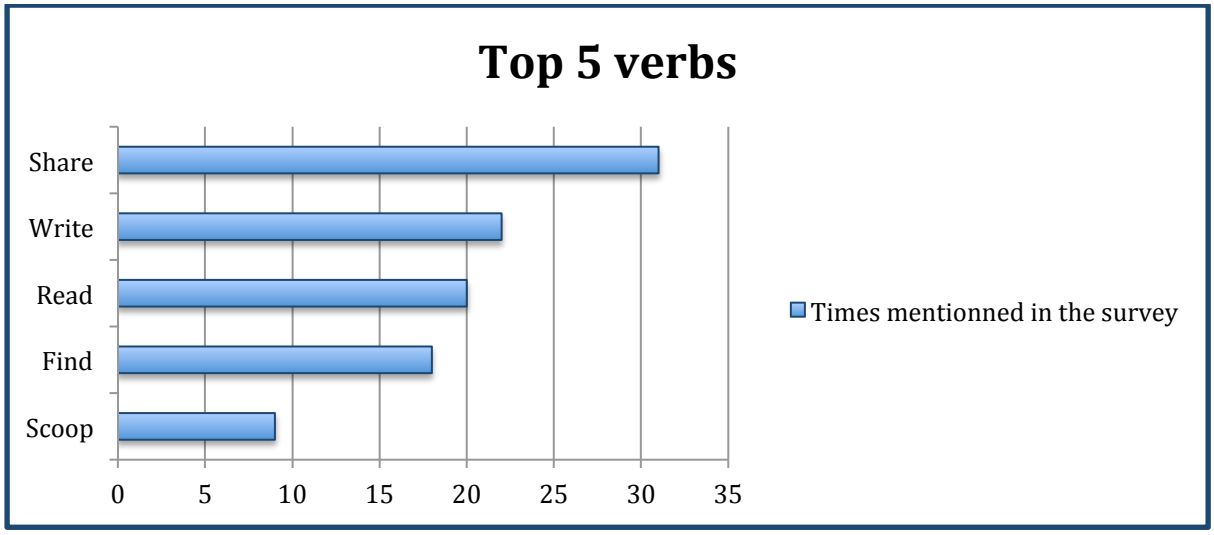

Figure 4.1: Top 5 verbs

From this figure, we can see that "to share" was used 32 times, and is the most frequently used verb in the survey. This is interesting because this is also one of the most important aspects of being a digital curator: the resources you collect are supposed to be shared with others. It is not only about being a consumer, but also a producer, which can be linked to Rheingold (2014)'s emphasis on *participation* as one of the five fundamental digital literacies. However, this does not automatically say anything about their learning outcome of sharing, and it is difficult to say to what degree the students have been actively focusing on the sharing aspect when curating resources. Nonetheless, sharing can be said to be a basic component of human interaction in general, and thereby interesting from multiple perspectives (Rheingold, 2012).

"To write" was registered 22 times, and "to read" 20 times. Reading and writing are central activities in all language learning, and it is important to note that these are also recognized with regards to digital curation. Reading will be an essential part of the first step of curation (see figure 2.1), as the students will need to read everything or parts of an article, in order to decide whether or not this is something they want to curate. As many of the respondents replied, they read different articles in English that they found on Scoop.it. In addition, they also read other people's insight-comments. As one of the respondents pointed out: This includes writing a summary of the news or text you scooped. You can include your own opinion and you can also scoop from other users"(R7Q1)[16]. This brings us over to the writing

[16] Reference to the survey material, R = respondent, Q = question

that took place on Scoop.it: writing your own insights on your curated resources, which will be presented in section 4.2.5.

The verb "to find" was used 18 times by the students in the survey. This is relevant because finding articles to read, or videos to watch, is regarded as the first act of digital curation. This shows that regardless of the student's opinions about Scoop's search engine, or how they experienced finding the different resources in general, many of them had recognized *finding* as a significant curation activity. It should also be noted that when the students wrote "I find Scoop.it difficult" for instance, this form of "to find" was not registered, as it refers to an opinion and not an action. Similar to the previously mentioned verbs "to feel" and "to think," this has to do with semantic differences[17], which has been considered in the quantitative registration process.

Finally, "to scoop" was mentioned 9 times in the survey material. Even though this is not a very high frequency, it is still very interesting, because I do not believe the students have frequently used this verb prior to this subject. As mentioned in the introduction, the noun "scoop" can be defined as "the latest information about something," and is often used in a news context (Oxford Dictionary). However, he verb "to scoop" can also be defined as "to pick up and move something" (ibid), which implies that the name of this particular curation tool can refer to both the action and the content. However, it is my belief that the verb "to scoop" as in finding and collecting something worth saving, has not been a frequent part of the student's vocabulary. It should also be recognized that the overall topic of the survey was in fact Scoop.it, so it is possible that the word was put in the students' minds in that particular lesson. In addition, the term "to scoop" is used in a publishing context by Scoop.it themselves as well as the teacher in the lesson, so there was no surprise that this verb had caught the students' attention. As a result one might even have expected it to occur at an even higher frequency in the survey. Nonetheless, the way in which they used the verb indicated that they have in fact understood what it means to digitally scoop something, and been introduced to a way of consuming online resources and participating in a digital network.

It should also be noted that the verb "to learn" was used 17 times in the survey responses. It can therefore be argued that "learn" should also have been at the top of the list of the most frequently used verbs. However, I will argue that this turned out to be a complicated word,

[17] Meaning in language

based on a few simple reasons. First of all, the fact that I asked the question: "Do you think Scoop.it can be useful to learn more English? Why/why not?" asks for their opinion or understanding of whether or not learning is possible through digital curation, and not an activity in it's own right. Second of all, "learning English" can include learning a variety of language and culture related aspects, which makes this question a bit vague and perhaps difficult to answer thoroughly. In addition, it depends on *what* they are suppose to learn, which may not have been clear to the students at that point of the process. As mentioned in section 3.5.2, I have in retrospect realized that I should have rephrased this question and not specifically asked if it could be useful to learn *English*, or divide this into two questions. This way of asking might have ruled out the student's reflections on learning something else, as they appeared to have interpreted learning language in its widest form, and not linked to a specific topic or skill.

Furthermore, if we disregard the verb "to learn" and consider the verbs "to share," "to write," "to read," "to find" and "to scoop" covered for now, there were still a variety of verbs used by the students that are interesting to consider in the search of 'the big picture'. According to my results, there were 17 other verbs that also reflect the students' understanding of what the actions that digital curation includes. These are presented in the table below, according to the frequency in which they appear in my material.

Table 4.2: Less frequently used verbs

Verbs:	**Times mentioned in the survey:**
Comment, discuss	7
Collect, look, see	6
Rescoop, search	5
Use	4
Publish, save	3
Choose, click, express, sort	2
Google, connect, repost	1

As this table presents, there are many verbs used by the students that are directly related to the act of digital curation. Apart from these, the survey provided data in addition to the registered verbs that could have been both interesting and relevant to pursue further. Unfortunately, I did

not have the possibility of elaborating to a great extent on every aspect of my material, which is why I chose to focus on verbs and the students' *understanding* of digital curation in this particular material. These verbs will be revisited in the discussion, where I will see them in the light of Bloom's Revised Taxonomy to explore the different cognitive levels of the digital curation. The value of the students' thoughts, opinions and understanding, should not be taken lightly. As this survey was conducted at the beginning of the project, it also served as an important stepping-stone for the next level of data collection and analysis, when I set out to become more acquainted with the reflections of four digital curators.

4.2 Presentation and Analysis of Four Digital Curators

In order to learn more about the individual students' experiences as a digital curator, I collected valuable data from four in-depth interviews. In the process of analyzing these, the emphasis was on student experiences that could be linked to developing their digital, reading and writing skills in English. These main categories will therefore structure the analysis and presentation of the results in this part of the chapter. The students will be referred to with pseudonyms, in order to secure their anonymity, but at the same time use names instead of numbers (informant 1, etc.) to keep a close connection to the original material. However, before analyzing the students' reflections according to the sub-categories that emerged in the process, I will start by presenting the students with a set of background- and contextual information.

4.2.1 Four students and their Scoop.it pages

The four students who were interviewed will be presented as Jacob, Eric, Nina and Mia. As mentioned in chapter 3, the students are between 17 and 18 years old, and have all chosen the subject *International English* as a part of their study program in their second year of upper secondary school. They will in the following be presented in the order of which the interviews took place.

Jacob curated resources about multiculturalism in Australia, and had five people in his Scoop.it community. He wrote two insight-comments, where one of them was based on a video from YouTube about society and culture, and the other on an online article from an Australian radio channel. An interesting aspect about Jacob's Scoop.it page is that he appears to have chosen to be slightly personal by linking the account to his Facebook profile. As a

result, he has the same profile picture on Scoop.it as he has on other social media. This practice of connecting different social media accounts is considered common social media practice, as well as a natural part of the digital curation concept. The ways in which for instance Facebook and Scoop.it can be connected to each other is illustrated in figure 2.1. It could have been a practical choice as well, since an option when registering your account is to link it to Facebook instead of providing your information manually. What supports the interpretation of Jacob's sharing being a social choice is that he has also chosen to write the name of his favorite football team and a heart at the top of his Scoop.it page. Regardless of his motivation, this appears to illustrate a normal practice for people who create accounts on multiple digital platforms.

Eric curated resources about multiculturalism in the UK, and had four people in his community. He wrote one insight-comment, which was linked to a curated article from the Guardian[18] that raises the issue of the successfulness of multiculturalism in the UK. In this insight-comment, he both presents what the article is about, as well as his own thoughts and perspectives. Despite the fact that though there was only one insight-comment, he shows that he has both understood and reflected upon the curated content. Unlike Jacob (and Nina), Eric has not connected his Scoop.it account to his Facebook account, but still added a profile picture. This picture is however a cartoon character, or a so-called avatar.

Nina was to curate resources with an emphasis on multiculturalism in fiction, both movies and literature, and had eight people in her community. However, based on her scoops, it may seem as she went a bit off topic, as she had chosen to scoop two articles where one was about multiculturalism in Canada, and the other was about multiculturalism in general. In her interview, she explained that she thought her topic was a bit difficult, and therefore chose to scoop articles she found interesting and overall relevant instead. It is also interesting to note that having eight people in her community was more than the other three interviewed students. She was the only one out of the four that included people from outside the class in her list of followed topics. Three of them were from her topic group, one was the teacher in the class, and the remaining four were other digital curators that focus on international topics such as women`s rights, anti-racism, multiculturalism, globalism, cultural worldviews, activism, society and learning, to mention a few. As such, it can be argued that Nina appears to have understood a bit more than the others of the possibilities of expanding her network,

[18] A British National Daily Newspaper

which will be further commented upon in part 4.4.4. In the same manner as Jacob, Nina has also linked her account to Facebook, and thereby has the same profile picture in both social medias.

Mia curated articles about multiculturalism in Canada, and had three people in her community. All of these were from her English class, and in accordance with the groups assigned by the teacher. She has curated three resources, whereas one of them was a video from YouTube about the Ottawa shooting in 2014, one was an article about terror as a threat to multiculturalism, and one was an article from the Huffington Post that she had re-scooped from another student in her community. Mia has neither connected her account to other social medias, nor uploaded a profile picture, which makes her account the least personalized one out of these four students. It is also interesting to note that Mia is the only one in this selection who has rescooped a resource from another student in the class. She has not written an insight-comment to this particular resource, but she has commented thoroughly on the two others, and one of these resources has again been rescooped by one of her peers. In this manner, I believe we see the blooming of a networked learning process, which will be further explored in section 4.2.3.

4.2.2 Categories

So far, the information presented about the students as digital curators and writers has mainly been collected from the Internet and their open Scoop.it accounts. This means that the information given has been factual, or based on my own thought and reflections on what I have found. Consequently, in order to become acquainted with the *students*' thoughts and reflections, the next step is to present the material collected from the in-depth interviews. As presented in the previous chapter (section 3.3), the approach for exploring the students as digital writers emerged from a mix of a deductive and inductive process. The three main categories that will be used for the analysis, is based on the categories presented in the theoretical framing section 2.4.2: digital skills, reading skills and writing skills, and refers to the deductive approach. These areas are also apparent in the interview guide, as the questions here were divided into the two main categories: digital curation (with a digital focus) and literacy (with a focus on reading and writing) (Appendix 4). As presented in section 3.3.2: when I explored my transcribed material according to these main categories, 10 sub-categories emerged. These are presented in the table below.

Table 4.3 Categories for the analysis (part 2)

Main categories (Deductive approach)	**Sub-categories** (Inductive approach)
Digital skills	Digital accounts
	Personal Learning Network
	Search Methods
	Source Criticism
Reading skills	Reading authentic texts
	Criteria for choosing which texts to read
	Reading texts from peers
Writing skills	Writing for an authentic audience
	Writing insight-comments

Furthermore, when these sub-categories were established, I sorted the relevant parts of the student responses in the interviews into the appropriate categories. How I approached this phase in the analysis is illustrated in Appendix 6 and 7. Even though these appendixes are just examples, the extract and table aim to convey the essence of my approach to the material that will be explored further and presented in the following sections. It should also be pointed out that all the quotations used in this thesis are my translations from Norwegian to English, as the interviews were held in Norwegian and thereby also transcribed in Norwegian.

With digital curation as the point of departure, the first main category I am going to approach in this analysis is *digital skills*. As presented in the theoretical chapter (2), digital skills involves a variety of competencies such as being able to "use a varied selection of digital tools, media and resources to assist in language learning, to communicate in English, and to acquire knowledge" (Utdanningsdirektoratet, 2006a). It was therefore challenging to put everything that can be considered digital skills conclusively in this category, as many of these skills will also be closely connected to reading and writing skills. As my interviews were based on getting to know the students as *digital curators*, the questions regarding reading and writing would consequently also have a digital framing. As a result, many aspects of the findings regarding the students' thoughts on reading and writing in a digital context could also have been presented as a part of the digital analysis. However, there are still some categories that appeared to be more specifically linked to digital skills than others, such as

having social media accounts, being a part of a digital network, searching for information and being critical toward sources online. These are consequently a significant part of the first step of my in-depth analysis and getting to know these four students as digital curators.

4.2.3 Results related to digital skills

The first question all four students were asked was simply "In your own words, what is Scoop.it?" Even though it is not this exact tool that is the most important part of my research, it is still interesting to have a closer look at the student's understanding of a digital curation tool. Jacob explained it in this manner:

> Scoop.it is a place where anyone can publish articles and get replies from people who actually care. People who want to read articles that actually matter, and not just articles that are spammed on Facebook all the time. A web page where people who care about news can discuss what is happening around the world (Jacob, p.1).[19]

Here Jacob highlights both the sharing and commenting possibilities on Scoop.it, and seems to find Scoop.it to be a more serious sharing platform compared to Facebook. Eric seems to share Jacob's views, as he pointed out that it was a "type of social media where one can share facts and articles." It is also interesting to note that they both talk about a form of social media, while Eric is the one who actually uses the term in his explanation. Eric also added that he found the sources discovered on Scoop.it to be reliable, which was supported by the possibility of commenting on the sources and uttering your opinion of them. Similar to the two boys, Nina and Mia understood Scoop.it as a source to find information and articles about a given topic. Mia also added emphasis on the sharing aspect, as she believed Scoop.it was a place where you were to "gather information in one place and share this with others, as well as write your own thought about it." Similar to the results found in the first part of the analysis, the students here use verbs such as finding, gathering, writing and sharing, which are central aspects of digital curation. These will be further discussed in section 5.1.

Digital accounts

In order to be a digital curator on Scoop.it, you need to have your own user's account. So how did the students experience this? This is a rather extensive question, as having an account would be the starting point for all activities involved in digital curation. It is however interesting to look at the students' replies to the question "What did you think about having

[19] These references of names and page numbers refer to the transcribed interview material. Even though the transcripts have not been added as appendixes, they have been included as these can be presented by request

your own Scoop.it account?" All four of them replied that it was quite all right, before sharing their experiences and opinions on it. Nina explained that she thought it was fine because she could find good articles that she could share, and if someone liked her post they could follow her account "if they feel like they follow the same directions" (Nina, p.2). She compares this to Twitter, which most likely is a social media more known to her and other students her age. This is interesting because it seems typical to try to understand the unknown based on what your previous knowledge. Even though Nina did not explicitly use the term social media, she mentioned several aspects relevant for social medias and the Web 2.0, which supports the belief that the interviewed students considered Scoop.it in fact a social media. Eric, who mentioned the term social media in the previous question, also draws connections to his regular digital habits outside of school, as he emphasizes that he has user accounts on many different web pages and is active on many social medias. He does therefore not consider having a Scoop.it account to be anything special, and said that he simply had a "neutral opinion about it" (Eric, p.2). Mia on the other hand, firstly commented on the usability of the tool, and thought Scoop.it was a bit difficult to grasp at first. However, once she had understood how the tool worked, she said that she especially valued seeing what others had written in order to get inspiration for her own work. This brings us closer to exploring the students' experiences of a networked learning process (Downes, 2005; Siemens, 2004).

Personal Learning Networks

One of the key elements of being a digital curator is developing a network (see figure 2.1). As presented in section 2.1.2, this can be called a Personal Learning Network (PLN), whereas the student in this study created their own network of both peers and other curators. However, working in this manner appeared to be a new approach to the students, even though they drew connections to different social media networks and seemed to recognize the positive aspects of networked learning. When asked what a network is, Jacob for instance replied that it depended on what I meant by that questions. This was a good point, as a network can in fact have different meanings and give different connotations. The fact that he raised this issue also shows reflection, which was supported when he elaborated upon his thoughts. He pointed out that you could have many different types of networks, for instance:

> A contact network or a Scoop.it network where people who can help you with things can contact you, or you can contact them. The advantage of the Scoop network was that we in the same network could see what the others had written about multiculturalism in Australia, which was my topic (Jacob, p.4).

This shows that Jacob had understood a very essential part of a learning network. You can find answers and information from others in your network and even contact them if you have further questions. However, this does not entail that the student *did* in fact contact someone in his or her network outside the classroom, but it is interesting to note that he recognized the opportunity. Eric, similar to Jacob, highlighted that a network is "a group of people where you can see what the others have been working on and what they find interesting." He draws connections to having followers on Twitter and Facebook, as you in a network can both publish yourself and comment on what others have published. It is interesting to note that he uses the term to "publish yourself" as this is both used by Scoop.it themselves, as well as being an essential aspect of social media and the Web 2.0. When asked whether or not he believes this could be useful in an educational context, Eric replied that this would be natural, as he finds "cooperation with others to be a natural and important part of all subjects in school." As presented in section 2.1.2, the cooperation aspect is highly essential in a Personal Learning Network. He also mentions that this cooperation may take place orally, in writing, on Facebook or on Twitter, which also are valid aspects of learning networks. In that manner, it appears that Eric has understood Scoop.it as a social media, in the same manner as Facebook and Twitter. Both Mia and Nina show the same type of understanding of what a network is. Nina also points out that her Facebook network is big, while Scoop.it is a small network since she is not very active there. When I specifically asked a follow-up question in the interview on what a *learning network* was, she replied: "those you learn with, perhaps? My school mates, my teachers and the things I learn in school will be a part of my learning network" (Nina, p.3). She thereby does not necessarily connects the term network to something digital, which is in keeping with a practical understanding of what a network is. A network of her "mates and teachers" could in fact, as she points out, be both digital and something in real life. We can see an example of Nina's use of her digital network on her Scoop.it page, where Nina has rescooped a curated resource from her teacher's page, commented on it in her own words, and then one of her peers from a different group has rescooped it again. In this manner, they have both shared the knowledge found in the original article, as well as read each other's thoughts on the topic. This can be regarded an ideal outcome of digital curation.

As developing PLNs can be seen as one of the long term objectives of digital curation, it was furthermore interesting to ask the students about the potentials for using for instance Scoop.it

in the future. Jacob, Eric, Nina and Mia were consequently asked: "Is digital curation tools such as Scoop.it something you imagine using in the future? If so, how?" Even though there were no clear "yeses," they all replied that it *could* be relevant for them for a variety of reasons. Jacob said he might use it to find information about different topics, and had found it easier to find articles here compared to for instance Google. Eric on the other hand instantly said that he was probably *not* going to use it, as he felt that he had his own methods of finding articles. However, he did not rule it out, and in the same manner as Jacob said that it would depend on the task at hand. Jacob also said that it depended on the task, and that it in that case would be most relevant in English, and furthermore pointed out that if the task were about finding different perspectives on a given topic, he would find Scoop.it particularly relevant. It is also interesting to note that Jacob saw it as possibly beneficial to simply have gotten to know Scoop.it as a digital tool, and said that: "if I hear something about it in the future, I might get taken more seriously" (Jacob, p.7).

Mia said that she were probably *not* going to use Scoop.it on her spare time, but that she believed it *could* be positive in a school context. When asked in what way, she replied: "Well, it becomes a different way of working, instead of the old routines." She also commented that it in addition added *variation* to reading as an activity, which was an aspect highlighted by Nina as well. Nina also recognized Scoop as a platform where she could continue to collect articles she finds interesting, and in the future simply read her insights to remember what the article was about. Still, she was not absolutely sure that this was something she would actually do though. It appears that with regards to questions about future use, the students seemed to focus more on the aspects of finding resources and giving their insight on different topics, and less on the potentials of PLNs.

As presented in part 4.3.1, Jacob had five people in his network, Eric had four, Nina had eight people and Mia had three. Except four people in Nina's community, these were all their peers, even though they had the opportunity of following other Scoop.it users as well. Even though the students said they had understood the possibilities of expanding their networks and the possible benefits of this, yet they had not done so themselves. It is therefore likely to assume that they were not able to take advantage of all the opportunities provided by a digital curation tool at such an early stage. As I will address further in section 5.5, the students would perhaps have been able to take more advantage of the possibilities of developing their PLNs, if the project had lasted over a longer period of time. There is often a gap between understanding

the possible advantages of something, and actually being able to make the most of these. It is also important to recognize the complexities of this work method, as structured use of digital learning networks were new to the students in this research project. This aspect will be further discussed in section 5.2.

Search methods

One of the questions the students was asked regarding search methods was "how did you search for sources on Scoop.it?" with a follow-up question on whether they found this method different than for instance searching for information on Google. Eric instantly uttered that he was impressed by Scoop.it as a search engine, and said "It actually found relevant articles!" He believed to have discovered articles that would have been difficult to find elsewhere, and had experienced the search results to be more 'to the point,' compared to Google. Jacob shared these experiences, and said that:

> It was kind of *easier*. You almost only found articles that were *specifically* relevant to what you were looking for, while if you search on Google you will find many other sources that only are slightly relevant for what you wanted to read about. In addition, the search results seemed more serious (Jacob, p.5).

He had experienced Scoop.it to provide more exact search results than Google, and again he commented on finding Scoop.it to be a credible source of information. Mia on the other hand, had not experiences Scoop.it as something different than Google with regards to the search process, other than that some resources were recommended to her on the first page. Nina commented the main difference to be that you could see what others had thought about that article, and furthermore that you could make up your mind whether you agreed or disagreed. It should also be mentioned that this *could* have something to do with the student's searching skills and ability to use key words in general, and not necessarily the difference between Scoop.it and Google. Scoop.it could on the other hand provide useful practice in using key words for online searches, as the encouragement to use such words are more apparent there compared to Google. In this manner, the students seemed to be more aware of the use of key words to narrow down their searches when using a digital curation tool, which can provide useful practice in searching for relevant information online.

Source criticism

Source criticism was unfortunately not something I specifically asked the students about in the interviews. Still, this aspect of digital literacy was pointed out by two of the students as a

part of their digital curation process, and turned out to be a very interesting and relevant aspect of digital curation. Jacob was one of the students that mentioned source criticism by his own initiative. He pointed out that since there are in fact "individuals who write the articles found on the Internet," this means that, "we do not know whether these people are right or wrong." Furthermore, he linked this statement to sources like Wikipedia, which is a web page he believed only presents one side of the matter. In comparison, he found Scoop.it to be more reliable, since you got the topics presented from different angles by different people, which made it "more interesting and forced you to make up your own mind." This would require a more active role of the curator in the search process, and is an aspect I wish I had been able to explore further in my research. It would also be interesting to explore to what degree other curators' insights actually influence the students' perception of the sources' credibility, as well as to what degree they are able to evaluate other curators in general. As mentioned in section 2.3.1, previous research has shown that students often are more concerned with evaluating the sources' relevance rather than their credibility (Kiili, 2012). However, in order to try to be critical towards the different sources, Jacob said that he also looked up information in addition to the articles he commented upon, in order to add more information and a nuanced perspective. I believe this shows a high level of reflections, which will be further discussed in section 5.1.

Mia was the other student who pointed out source criticism, and she highlighted several times during the interview that being critical was an important aspect of being a digital curator. When asked whether or not this was something her teacher had pointed out to her, she replied that she believed he did not mention it, but that she regarded it as a "competence aim where they were supposed to be sort of critical of sources" (Mia, p.1). She continued by saying this is something the teachers mention from time to time, so even though she did not recall her English teacher mentioning it this time, this is something she still tries to do anyway. Mia pointed this out with regards to online work, and articles and videos in general, and stated that the information given in these are not necessarily correct. She used the example of her curated resource "Canadians React to Ottawa Shooting Racism," where she explained that she did not find the hidden cameras and actors in the video credible, and that this *one* "research project" consequently could not be representable for the Canadian population. She also added that she valued seeing matters from different perspectives, and had experienced multiculturalism often presented from a negative point of view in the media. As a result, this was something she said

she tried to point out in her insight-comment when she re-scooped this video. Mia's insight-comment is rendered below as found on her Scoop.it page:

> **Mia's insight:** You hear a lot about the downsides of multiculturalism and people's view on other religions or cultures. This video shows a rather positive side, of a social experiment in Canada of a man discriminating another because of his looks, because he is dressed like a Muslim. They are at a crowded bus stop, and the man comes over to the Muslim and tells him that he does not want him to take the bus. People start to protest and the man starts arguing with them about the Muslim: "What if he has explosives strapped to him, did you think of that?" and one responds "What if you have explosives strapped to you, did you think of that?" He refers to the recent terror attacks. Most people become angry at the disrespectful man, and once it even breaks into a fight, before the man could even tell it was just an experiment.
>
> I think it is great to see that people stand up for the Muslim. At the same time the rude man was very hostile and hard-hitting. Would people react to smaller and not so obvious incidents? Because most of people's prejudices are not so observable – it is inside our heads.

Based on her insight-comment, we can see that she tries to enlighten the different perspectives on multiculturalism in Canada, where she states that she thinks it is sad that attitudes towards a large group of people should be based on the actions of few. She also notes that "it is not that difficult to understand why people have negative thoughts concerning the religion," which supports her statement that she tries to see matters from different sides. However, it is not clear in this insight-comment that she in fact is critical towards the credibility of this video, as she stated in the interview. There are several possible reasons for this. Perhaps it has something to do with what she said about being afraid of offending anyone. Another reason could be that she has chosen to focus on commenting on the *content* of the scooped resource, and not the source itself. The latter is quite possible as students are found to often be more concerned with critically assessing the *relevance* of the sources, and not the *actual* source itself (Kiili, 2012). This will be further discussed in section 5.1.1 in the discussion.

4.2.4 Results related to reading skills

As presented in section 2.4.2, reading skills is by the National Curriculum (LK06) described as being able to "create meaning by reading different types of text for different reasons and of various lengths and complexities" and "understand, explore, discuss, learn from and to reflect upon different types of information" (Utdanningsdirektoratet, 2006a). As such, reading and writing skills are closely linked together in a digital curation context, as they become both a

consequence and a prerequisite of each other. It is therefore necessary to look into how the students experienced reading in this project, with an emphasis on reading in a digital context.

Choosing which text to read

When having created their own Scoop.it accounts, one of the first activities of digital curation process is to decide which articles to read, based on your area of interest and the following search results. This is relevant to explore further because another aspect of reading skills highlighted by the LK06 is to "understand, reflect on and acquire insight and knowledge across cultural borders and within specific fields of study" (Utdanningsdirektoratet, 2006a). In order to choose which articles to read to acquire new knowledge about multiculturalism, the students presented several criteria they found significant. Nina pointed out the headline as one of the first clues for determining whether or not an article was interesting and *relevant* for her topic. She had experienced finding several appropriate resources, both texts and videos, which could give her perspectives on multiculturalism in Canada. She did not remember if she found the video she scooped on Scoop.it or on YouTube, but it can be seen on her Scoop.it page that it was in fact a rescoop. This may imply that even though she only searched for resources through Scoop.it; she had understood that it was possible to scoop from other web pages as well.

Mia on the other hand, said she found it difficult to find relevant resources about her topic "multiculturalism in literature and fiction". She had found this topic rather difficult as a whole, and she commented that the resources she curated did not actually have anything to do with literature or fiction. Therefore, she chose to curate articles about the aspects of multiculturalism in which she was interested. Interests and motivation thereby appears to be a relevant factor here, which will be further addressed in the next sub-category. Eric did not utter any particular thoughts on this matter, but Jacob highlighted the length of the articles as highly significant. This argument would probably be relevant to the other students in this research as well, as my experience tells me that most students do not wish to read long texts unless they have to. Eric considered three pages as too long for an article, while the ones he had found that were half a page were perfect. Compared to long articles, he highlighted videos as a good alternative, and had chosen to watch a YouTube video about multiculturalism in Australia. In the same manner as Mia, Jacob also valued diversity and uniqueness, and said that he wanted to scoop two resources that were different from each other.

Jacob was the only curator who had found a resource outside the Scoop.it search engine. This means that three of the four interviewed students had not scooped anything directly from the Internet. The limited amount of direct scoops is however understandable, as the students were in fact guided by their teacher to search for resources on the digital curation platform. Scoops from various sources could possibly have occurred more frequently within the group if the project had lasted longer and if they had worked on multiple topics. It is also my belief that scooping from the Internet directly instead of through the Scoop.it page, is to be regarded as a slightly more advanced level of digital curation, as it requires different strategies for searching and source evaluation. Nonetheless, this is one of the aspects that could have been explored further if the project had taken place of a longer period of time. This is an issue I will return to in section 5.3 as well as in the conclusion.

Reading authentic texts online

By 'reading authentic texts' I mean reading articles, in this case found the Internet, that have not been adjusted for educational purposes or re-written into simplified versions to match a particular level or foreign speaker (Harmer, 2007). When the students were asked "how did you experience reading *authentic* texts from the Internet," reading texts online was something all four students highlighted as positive. Reading was in fact the initial aspect Jacob pointed out when he was asked to explain what Scoop.it was in his own words. As presented in the beginning of this section, Jacob understands Scoop.it is "a place where people carefully evaluate what type of articles they curate", and that these are "articles that actually means something, compared to those spammed on Facebook all the time" (Jacob, p.1). This is another example of how the students compares Scoop.it to other social medias, and shows Jacob's understanding of Scoop.it as a more serious alternative. Student Eric got quite excited when he was talking about the opportunity of choosing which articles to read himself. When asked how he experienced reading online articles, compared to those in the textbook, he responded:

> Articles? Yes, definitely! I often find texts in our English book to be a bit boring. They are not always to the point about the topic you are looking and can be a bit vague. So I prefer to read articles online. I do that in my spare-time as well, so I'm really excited (Eric, p.4).

This response can be seen as an appreciation of being given the opportunity to work in the same manner in school as he uses his reading skills in English in his spare time, which furthermore seemed to motivate him in his schoolwork. I also found signs of reader's

motivation in Nina's interview, when she specified her enthusiasm linked to one article in particular, called "What Can You Learn From a Box of Crayons?" Even though she pointed out that it was a bit "off topic," since she was supposed to read articles about multiculturalism in movies and literature, she highlighted this as an article she especially enjoyed reading. She also said that she even read this article aloud to her mom when she got home. Nina's insight-comment to this text was:

> **Nina's insight:** This article gives a simple, yet beautiful insight in our colorful world. Filled with different people, opinions and lives. We are all equally important to complete this world of ours. Explained so easily that even the children managed to understand how each of us color the world in different ways, and how we together create a more combined and fulfilling community.

This may point to the evidence that reading self-selected articles can provide valuable reader appreciation and motivation to read more texts in the target language. It should also be mentioned that if it is the *choice* that motivates, this could be done outside a digital context as well. Nonetheless, the selection of and access to texts on the Internet are close to limitless, which provides an entirely other assortment to choose from. In addition, Nina commented that she experienced being able to find out *more* about the topic multiculturalism on the Internet than she could in her textbook, which is quite understandable. Mia also valued reading articles outside the textbook, and commented:

> The textbook is sort of meant for you, and that you are going to read it. On Scoop.it on the other hand, you find articles from different web pages that are not necessarily meant for learning or school. Then it becomes more "close to reality". Not only something we are meant to do in school, but more real (Nina, p.5).

As authentic texts online are not aimed particularly at ESL readers, they will consequently be in Mia's words: "more real". These texts will simply be similar to what the students encounter, or will encounter, in real life (Harmer, 2007). In the same manner, Mia had chosen to watch a video about multiculturalism, which would not have been an option in the textbook. Listening skills were also included as a result of a digital curation process, but this is not an issue I will pursuit further in this thesis.

With regards to the written word, there is always the increased risk that the students may find the texts too complicated. There are quite many articles on Scoop.it from British or American newspapers and blogs, which may prove to have an advanced language and a particular reader-group as intended recipients. However, this did not appear to be a significant challenge

for the four students that were interviewed. All four of them replied that they found the level of difficulty quite all right, and said they had not run into any particular challenges with vocabulary. This does not rule out that they avoided some texts in the selection process, or that other students in the class would have found the same text too challenging, but it can give us an idea of the general perceptions in the group. These are all interesting aspects of digital reading, which will be further explored in section 5.1.

Reading texts from peers

As mentioned in section 4.2.3, creating a network or a community on Scoop.it gives the students the opportunity to see what others have curated, and to read what others have written as their insight-comments. Based on the students' reflections in the interviews, it seems to be a high degree of consensus that seeing what their peers had written helped them in their own curation and writing process. Jacob pointed out that he found this to be one of Scoop.it's advantages, and said that he regarded it as useful to see what his peers had written about the same topic as he had in order to get started writing his own. Nina also commented that she had read her peers' insight-comments, but she was not sure how many of her fellow students had done the same. There is consequently no way of knowing to what degree the students read each other's insight-comments, as the students in the class were not asked this specific question at any point. Based on my observations of the assessment situation at the end of the project, it appeared as the students focused mostly on their own resources and comments along the way. That does not, however, undermine the apparent significance of being inspired by peers or other curators in the beginner's phase. In the same manner as Jacob, Mia expressed that seeing what your peers had written was one of the aspects of how Scoop.it could be useful to learn more English.

4.2.5 Results related to writing skills

When we use the term writing, we often refer to the practical process of writing. As exemplified in this digital curation project: when the writing takes place online, it often becomes a social process as well as an individual one (Herrington et al., 2009). According to the LK06, writing skills are defined as being able to "express ideas and opinions in an understandable and purposeful manner" as well as being able to "use informal and formal language that is suited to the objective and recipient (Utdanningsdirektoratet, 2006a). As previously stated, reading and writing skills are closely linked together in a digital curation

context. How, then, did the students experience writing insight-comments to their read and scooped resources?

Writing insight-comments

The four interviewed students seemed to have a similar perception of what an insight-comment should contain. When they were asked the question: "In your own words, what is an insight-comment," they all pointed out that it was a short text that should say something about the *content* of the curated article. It should also present your *own thoughts and reflection* about it, in order to *inform* the person reading your insight. Although it had been raised as a topic for discussion by their teacher, it was interesting to see that they had a similar understanding of what it should contain. Nonetheless, it was interesting for me to ask the students if they had thoughts on whether or not there was a difference between a "comment" and an "insight." On this question, Eric replied that an insight is more analytical, while comments are often less formal and shorter. He also pointed out that both insights and comments could vary in quality and differ from person to person, but that an insight is still expected to be more formal and give more in-depth information.

Alhough a bit hesitant and unsure, both Mia and Nina also concluded that it takes more effort to write an insight than a simple comment, compared to for instance comments on Facebook or other social media. They believed the difference was that you were not only encouraged, but also *expected* to present their thoughts and specific insight on the matter. They believed that the word itself says something about these expectations, as Scoop.it asks you to "give your insights here…" Jacob pointed out that the main difference is that a comment could also be about whether or not you believed the author of the article had done a good job or not, while an insight would be to "more reflect upon and *use* what the article actually said." Nina appeared to support this, and said that "a comment could simply say "I think this article is bad," but nothing about *why* this is the case" (Nina, p. 6). From her perspective, an insight would require to elaborate upon this. Jacob highlighted that when writing an insight-comment you are in fact *discussing* the topic in the original source, and that you in that manner can present your own views as well.

Nina said that she had found presenting her views to be quite difficult at first. She was not sure how to use the tool in general, or to what extent she should add as her own opinions to her curated resources. Still, she pointed out that own opinions turned out to be the most

important aspects of an insight-comment, once she got the hang of it. Perhaps she was inspired by her peers, as presented in the previous section of this chapter. Nina also pointed out that if the reader wanted to find out more about the content of her scoop, he or she would have to click on the link and open the original webpage. In that manner, Nina valued providing a short text so that the reader could understand what it was about, but not to say too much in order to create interest. Similarly, Eric explained it like this:

> My impression was that an insight-comment is about providing a quick overview of what the article is about, so that people who are not bothered to read the whole article can perhaps read the insight-comment and sort of get a summary. You can also comment on certain aspects of the article, and also provide your own insights, perhaps. I did not do that myself, though, but it is possible to add your own insights based on your own experiences that could contradict something in the article. I feel that it is quite open what can be defined as an insight, really (Eric, p.4).

Here, it is clear that Eric has understood the essence of what an insight-comment should contain. I find it interesting that even though he pointed out these aspects of adding own perspectives, he also said that he had not done so in his insight-comment. Why is that? Is it because he did not feel like he had own experiences that were relevant for that particular insight-comment? Or is it because writing your thoughts beyond a summary takes more time and effort? As I unfortunately did not ask this as a follow-up question, it is difficult to tell. Nonetheless, I believe we can see that he had tried to add own perspectives to his curated article about multiculturalism in the UK:

> **Eric's insight:** This article primary focus on how the development of the multiculturalism in the UK has been. It is based on surveys given to immigrations to the UK, to ask questions whether they feel accepted into the UK or not. According to the article, a big share of the immigrants, feel welcomed to the UK. That contradicts earlier statements from David Cameron, who has stated that multiculturalism in the UK has failed. It also mentions the amount of Muslims practicing sharia in their homes and shows statistics that the amount of those, are way below what people would think. Furthermore, the article focuses on common misconceptions of immigration and is presenting data and information contradicting those misconceptions.
>
> From my perspective, the article was interesting as it presented some data, which presented some rather surprising facts, which definitely has a value.

What shows Eric's own perspectives in this insight-comment is the part in the middle of the first paragraph, where he compares the focus in the article with the previous statements of PM David Cameron. I also believe Eric here expresses "ideas and opinions in an understandable

and purposeful manner," as was described by the LK06 for the skill of writing (Utdanningsdirektoratet, 2006a).

As exemplified by the insight-comments so far in this chapter, they can be of varied length and content. It is also not uncommon for the insights to be even shorter, for example as one of the other students in the class wrote "another awesome insight," when rescooping one of Nina's scoops. I also found examples of scoops that had no comments, especially if they were rescoops. Consequently, it *is* possible to curate resources without writing anything at all. In this project however, the writing was highlighted by their teacher as significant, in order to make use of digital curation in a clearer educational context. In such a context, one might think that it would be easier for the students to write these short texts rather than long ones, compared to for instance the more frequently used essays in the ESL classroom. The students' thoughts on this matter were not *specifically* explored in the interviews, but came up in one of them as a part of the conversation. Jacob commented that he thought it actually was *more difficult* to write short texts like insight-comments, as he believed they were expected to be more specific in a digital curation context. Although it should be recognized that it is highly individual what students find difficult, it is still an interesting and relevant reflection. Writing "another awesome insight" would for instance probably not have been seen as particularly challenging. However, Jacob pointed out that he found it easy to just write down everything that "pops into his head," but when writing insight-comments he had to make it short and still include all the most important aspects. He also said that it was all about making the reader understand *why* this was important, and *why* you had chosen to include these specific aspects. This focus is also visible in one of Jacob's insight-comments from his Scoop.it account:

> **Jacob's insight:** This text addresses a current dilemma regarding multiculturalism in Australia. Some of the inhabitants fear that the current laws of Australia would be replaced with religious laws from Islam. They especially fears for the introduction of Sharia law. Today Muslims are a minority in Australia, nevertheless they are increasing swiftly. Nonetheless Australia is a multicultural nation and was even build on these pillars.
>
> I do not believe that Sharia law would be allowed now or in the future, mainly because the democratic attitude is too strong in Australia. I also doubt that especially women would like to give away their democratically born freedom in exchange for suppression and intolerance.

As highlighted as significant by the students themselves, this insight-comment says something about both the *content* of the article and the curator's *own thoughts and reflections*

on the matter. Jacob refers to the content and the overall topic by referring to Muslims, Sharia laws and Australia as a multicultural nation, as well as providing his own insights on whether or not it is likely that Sharia laws will gain momentum in Australian politics in the future. As Jacob pointed out himself, he spent quite some time writing this, and I believe this is also clear from a reader's perspective.

Writing for an authentic audience

The students' reflections on writing insight-comments have so far included the writing for an authentic audience in an implicit manner. It was therefore interesting to explore more explicitly how the students "experienced writing insight-comments openly online for all to see." Mia was the one out of the four students who was the most conscious about this authentic audience. She said she felt that writing correct English with regards to *grammar* and *syntax* became even more important, because her text was going to be posted online and could be rediscovered anytime in the future. She was also concerned about not insulting anyone, both regarding what *resource* she curated and the *insight* she provided linked to it. She highlighted that this *critical perspective* would be relevant if she was only handing in her work to her teacher as well, but that it became even more important when posting something openly online. However, if she were to post something that could be perceived as provocative, she thought her insight should reflect this. It is likely to believe that this focus became especially apparent because of the topic multiculturalism, which I believe can be mirrored in her insight-comment to an article about the consequences of Canadian terror attacks:

> **Mia's insight:** Terror attacks threaten Canada's multicultural project" is an article presenting the two last terror attacks in Canada and some consequences of them. Canada has been viewed by itself as open to immigrants, but these attacks were so shocking and things have changed. People begin to worry. The number of Muslims in Canada has increased, but so has the number of anti-Muslims. More than half of Canadians say their view on Islam is unfavourable.
>
> I think it is sad that a few people's actions shall affect a billion people belonging to the same religion as them. Islam is diverse, just like any other religion. Extremism is bad no matter what religion or philosophy of life. At the same time it is not that difficult to understand why people have negative thoughts concerning the religion. The media's viewpoints when it comes to these themes are definitely one of many reasons Islam has gotten a negative status.

Based on this insight, we can see that Mia wished to present an objective view by for instance stating that extremism is bad no matter what religion or philosophy of life, that she can understand why people have negative thoughts regarding religion, and that media should be

take their share of the responsibility for this. I believe Mia's insight-comment shows a high level of reflection through this insight-comment, and the levels of cognitive thinking in a digital curation context will be further discussed in section 5.1.

4.3 Chapter Summary

In this chapter, I have presented and analyzed my material based on both inductive and deductive approaches. Firstly, I presented part one of my analysis, which consisted of quantitative content analysis with a focus on verb that illustrate student *understanding* of digital curation. Secondly, I presented four students from the research project as digital curators. The material from the interview with these four students was furthermore analyzed and presented according to three main categories, in keeping with basic skills from the National Curriculum, and nine sub-categories that emerged from an inductive approach to the material. Finally, I explored to what degree the students imagined using digital curation tools in the future. This brings us over to the next step of this study: discussing my results from a theoretical perspective.

5. Discussion

The purpose of this chapter is to reflect upon the outcome of my research. To do this, I will focus on a few main areas: levels of digital curation competencies, networked learning, and potential for future use. I will firstly discuss how the acts of digital curation can take place at various cognitive levels based on Bloom's Revised Taxonomy, and furthermore connect this to how the ESL learners reflect on reading and writing in such a context. Secondly, I will discuss the students' experience of networked learning, and finally discuss to what degree digital curation is experienced as a learning tool valuable for future use, either in the English subject or for future education in general. The focus on future use in particular has been added to lift the perspectives beyond this particular project, and explore the long-term possibilities of digital curation. I will also discuss expectations and contradictions within my results, as well as reflect upon what I did *not* find in my material. This discussion will thus combine the two analysis approaches from the previous chapter, in order to see the bigger picture in a theoretical framing. This will lead way to the final chapter (6), where I will revisit my actual research questions and conclude my entire study.

5.1 Digital Curation and Bloom's Taxonomy

When being a digital curator, actions such as finding, reading, contextualizing and evaluating content, as well as sharing what you found, are regarded as core activities (Waters, 2014). My study shows that after only a brief introduction to curation and Scoop.it as a tool, students grasp this quickly. To explore *why* this student understanding of digital activities is of significance, I will in the following discuss the verb results from section 4.1 in the light of Bloom's Revised Taxonomy. The aim of this is to see to what degree digital curation can be a starting point for higher orders of thinking, based on both the students' understanding of digital actions and their reflections from the interviews. Let us start by reviewing an adapted version of table 2.1 from the theoretical framing, where I have highlighted the verbs from the analysis section 4.1 in yellow.

Table 5.1: Aspects of digital curation on taxonomic levels

Taxonomic levels	Digital skills (Churches, 2009)
(6) Creating	Designing, constructing, planning, inventing, devising, making, programming, filming, animating, blogging, video blogging, mixing, remixing, Wiki-ing, publishing, videocasting, podcasting, directing/producing, building or compiling mash-ups
(5) Evaluating	Checking, hypothesizing, critiquing, experimenting, judging, testing, detecting, monitoring, commenting, reviewing, posting, moderating, collaborating, networking, reflecting, product testing, validating
(4) Analyzing	Comparing, organizing, deconstructing, attributing, outlining, structuring, integrating, mashing, linking, reverse-engineering, cracking, media clipping and mind-mapping
(3) Applying	Implementing, carrying out, using, loading, playing, operating, hacking, uploading, sharing, editing
(2) Understanding	Interpreting, summarizing, inferring, paraphrasing, classifying, comparing, explaining, exemplifying, advanced searches, Boolean searches, Blog journaling, Twittering, categorizing and tagging, commenting, annotating, subscribing.
(1) Remembering	Recognizing, listing, describing, identifying, retrieving, naming, locating, finding, bullet pointing, highlighting, bookmarking, social networking, social bookmarking, favoriting/local bookmarking, searching, googling

As illustrated in the table above, I found several connections between Anderson & Krathwohl (2001)'s Revised Taxonomy levels, Churches (2009)' list of digital actions and the findings in my material. I will furthermore elaborate upon these in the following sections.

5.1.1 Digital curation at the basic taxonomic levels

After firstly becoming acquainted with a digital curation tool, a curator appears to begin at the first step of the taxonomic levels: *Remembering (1)*. On this level, Churches (2009) lists activities such as locating, finding, bookmarking, social networking, googling and searching – all of which are the basic activities when working with digital curation. Even though this was the student's first encounter with curation in an educational context, many of these activities seemed familiar to them. From the analysis of the survey material (section 4.1.2), I found several of the verbs used by the students that can be placed on the first taxonomic level. "To

find" was one of the most frequently used verbs, which based on figure 2.1 (theoretical framing, section 2.2) can also be the starting point in a curation process (Waters, 2014, in Downes, 2014). In order to have content to curate, you firstly need to *find*, *locate* or *retrieve* it first. However, to simply *find* something to curate is not regarded as particularly challenging, and can therefore take place at a low order of cognitive skills (Churches, 2009). Neither is tagging, bookmarking or social networking, which is also in keeping with Rheingold (2012) who characterize these activities as lightweight digital activities.

Finding can on the other hand be seen a part of *searching*, which are placed at both *remembering (1)* and *understanding (2)*. This means that if the students preformed their searches with an advanced search technique or with an emphasis on source criticism, we move up the taxonomic ladder. However, the categorization of these terms should not be considered final, as some of the skills can be placed at more than one level. For example, it can be questioned if *recognizing* and *recalling* how to find, tag and bookmark something in a social network, can also be placed at other levels than remembering (1). For instance, when a curator *finds* a source, he or she might *compare* (level 2) it to other sources, and furthermore *edit and share* it (level 3) on his or her Scoop.it account. As illustrated by one of the students from the survey: "The purpose of Scoop.it is to help people find relevant information faster and that you can sort your finds in "boxes"" (R8, Q3)[20]. I believe these actions refer to a more complex cognitive process than simply remembering how to practically preform a digital search. This quotation also emphasizes the importance of *relevance*, which will require a form of evaluation (level 5). I will return to this issue in section 5.1.4. As a result, it is difficult to categorize the digital actions without recognizing that they at times can be placed at more than one level at the time, or change levels at different steps of the curation process.

The cognitive reflection that takes place when *searching* for information on the Internet is always interesting when discussing ICT in education. Siemens (2004) points out that *know-where* knowledge is a trending feature of 21st century learning, and it shows no sign of declining its significance. However, this should not to be seen as a replacement, but rather as an important supplement to the more traditional *know-how* and *know-what* focus. Exposing the students to a variety of possible sources of knowledge through for instance a content curation tool, and practice in how to make use of these, can thereby become a valuable approach of promoting digital literacy. The knowledge of *knowing where* can also be seen as

[20] Respondent nr.8, Question nr.3

a part of what Brown (2005) refers to as *information navigation*, with emphasis on promoting the skill of navigating through an 'ocean of knowledge'. With regards to Scoop.it as a tool in particular, one of the students said "I liked the search function on the sidebar which makes it easier to find the right information" (R21,Q5). This comment informs us of the actual search features of a digital curation tool, and pinpoints the technical aspect of digital curation. Another comment about the technical possibilities was from a student who appreciated being able to save what he or she had searched for and found valuable:

> It is different from anything we have done before, and it is easy to rescoop something and go back later to read it. This way we can keep searching for information without "losing" the other information we have gathered (R9, Q5).

In this manner, content curation tools can be seen as a starting point to locate and collect *current* and *up-to-date information*, which is in keeping with the intent of all connectivist learning activities, and one of Siemens' eight principles of connectivism (Siemens, 2004). From my analysis of the student interviews, it seems that this is something they both recognized and appreciated. One of the students in the research pointed out that textbook-articles could be a bit vague, and that he preferred online reading, which enabled him to find other texts that were more "to the point." This was also supported by another student who found reading authentic online articles more "close to reality," and not necessarily adapted to an ESL learner.

This brings us away from the technical aspects of searching for information, and over to being critical towards the information the curator finds. Being able to *analyze* and *evaluate* the sources becomes significant in a participatory media landscape, and can be linked to Rheingold (2014)'s focus on *crap detection*. It is simply not enough to *find* digital resources, if the student does not strive to analyze or evaluate the information he or she retrieves. Students may be overconfident regarding their web use, and this can consequently lead to a non-critical acceptance of information. This requires a higher level of cognitive reflections, and I will return to this issue when discussing level 4 and 5 of the Taxonomy. However, before being able to start *evaluating* or *analyzing*, actually *understanding* the information you find, locate, list or bookmark, is what can bring the curator to the next taxonomic level.

Understanding (2) information is according to Anderson & Krathwohl (2001)'s Revised Taxonomy what builds relationships and links knowledge. It is therefore important that when the students work with digital curation, they must simultaneously work with actually

understanding the content of the information they find, as well as the process and concepts, to furthermore be able to *describe* and *summarize* this into their own words in an insight-comment. This also means that to reach the next step of the digital taxonomic level, requires, as already mentioned, more advanced searches, tagging when categorizing, as well as subscribing and summarizing. Based on the results from this study, I have found that many of the main activities of digital curation takes place on this level.

The aspect of *commenting* is complex, and will require an extensive discussion to cover all of its elements. Unfortunately, the limitations of this study does not allow for such a discussion. However, what is important to keep in mind is that there are no explicit guidelines to what is expected, either in a curation context or in other social medias. It is up to the participant to decide what he or she wants to write. This is reflected in by Churches (2009) as well, who has placed "commenting" at both level 2 (understanding) and level 5 (evaluating). This means that a comment could vary from simply reflecting an understanding of a given topic, to a comment that evaluates both the content and the source. It could however be discussed whether or not some comments on social medias, on for instance news articles shared on Facebook, even show a level of understanding at all. It is quite possible to state your opinions without necessarily having the basic knowledge in place (level 1). This will consequently result will be a comment without an *understanding* (level 2) as well, and at a low taxonomic level. People may for instance have many opinions and be quick to share these, without necessarily having followed the taxonomic steps from the bottom-up. This is another example of why taxonomic categorization is complex, and not fully representative of reality. With this in mind, I will in the following focus in *commenting* in a digital curation context, as it occurs on Scoop.it.

Based on my material, I found that the students' insight-comments on Scoop.it would vary from simply showing an understanding of the curated resource, to evaluating it and provide critical remarks. It is therefore interesting that my study illustrated how the students believed there was a difference between an "ordinary digital comment" and an *insight-comment* on Scoop.it. The interviewed students believed a digital comment could be simple and short, while an insight should provide more thoughts and own opinions. This is interesting, as the word "insight" is defined by Oxford Dictionary as "the capacity to gain an accurate and deep intuitive understanding of a person or thing." As one of the students from the interviews explained it: "An insight should be more analytical, while a comment is less formal and a lot

shorter." What was expected from an insight-comment was also discussed in the classroom, and where students pointed out features such as giving the reader a general idea of what the content, giving your own opinion as well as the fact that the comment should be both relevant and honest.

Regardless of this common understanding of an insight-comment, there is no automatic transfer to actually writing insight-comments at a certain level. There were for instance some students who had only rescooped a resource and not commented at all, or simply written "another awesome insight." It is therefore difficult to conclude with a guaranteed level of reflection when writing any form of digital comment. Nonetheless, writing a *good* insight would still demand a substantial level of reflection, which is an issue I will return to in the following paragraphs. It is also interesting to note that the Danish educator and ICT blogger, Ture Reimer-Mattesen suggests a list of examples of Web 2.0 tools at different taxonomic levels, where he has placed Scoop.it at level 2: *understanding* (Reimer-Mattesen, 2012). When the emphasis is on searching, categorizing, tagging, commenting and subscribing, I agree that Scoop.it is an appropriate tool to promote these skills. However, I believe that my discussion to this point has shown that it does not have to stop there. Based on these findings regarding insights, I believe that a content curation tool can be an interesting starting point for working with digital comments and what it means to be an active networked participant.

5.1.2 Digital curation at intermediate taxonomic levels

Based on my analysis, I found that "to share" was the most frequently used verb to describe content curation. According to Churches' digital taxonomy, *sharing* is one of the key terms of *applying (3)*, and is defined as "carrying out or using a procedure in a given situation" (Anderson & Krathwohl, 2001). This makes the verb "to use" also relevant for this step. *Sharing* is a key feature in developing PLNs, as these are all about collecting resources and sharing ideas (Krokan, 2012). It is therefore interesting to note that sharing was the first aspect the student Eric mentioned in the interview, when he was asked to explain what Scoop.it was in his own words. "Scoop.it, in my impression, is a form of social media where you can share knowledge, share facts and share articles" (Eric, p.1). I believe that we here can see the first steps towards moving the focus of digital curation away from an individual use to save interesting resources, to a social media sharing culture. As Rheingold (2014) points out: *participation* is regarded as one of the five fundamental digital literacies, and builds upon simply participating in a digital society, instead of being a part of a passive

consumer culture (p.147). This is interesting, because this finding may imply that it is in fact the sharing and social media aspect that brings the curator to the next taxonomic level. As a respondent from the survey pointed out: "one of the primary functions is to search up content using keywords, then share and comment on that" (R22, Q1). This shows an understanding of several steps of the content curation process: *searching, sharing* and *commenting*. With regards to Scoop.it as a tool in particular, student Jacob pointed out in his interview that Scoop.it was:

> […] a place where anyone can publish articles and get replies from people who actually care. People who want to read articles that actually matter, and not just articles that are spammed on Facebook all the time. A web page where people who care about news can discuss what is happening around the world (Jacob, p.1).

From Jacob's perspectives, it seems that not only is Scoop.it a place to *share* and *communicate*, but it is also a place that has a certain level of credibility, compared to other social media networks. There are no guarantees for this, but I believe it can tell us a great deal about the type of curator Jacob is shaping up to be, looking for important ideas and identifying accurate and trustworthy sources. These are also aspects drawn upon by Richardson (2010), with regards what students who compose online can learn when being digital and connective readers and writers. As a result, when *using* a digital curation tool and *sharing* resources and knowledge, we can say that the curator is both *applying* and *promoting* his or her digital literacy.

Anderson and Krathwohl (2001) describe the skill of *analyzing (4)* as being able to break material into constituent parts and detect how the parts relate to both each other and to an overall structure or purpose. On this taxonomic level, to *compare, organize, structure* and *link* are some of the digital activities that may take place (Churches, 2009). These activities are closely connected to "collecting," which was used by my respondents and informants on several occasions. As one of the respondents pointed out in the survey:

> Scoop.it is a way to collect information where the website sorts out which articles and videos that might be relevant for you. You can save the articles that you find and have collections of scoops regarding the same subject. You can go back and look at your previous scoops whenever you want (Survey, R8Q1).

I believe this quote illustrates the essence of digital curation in an excellent manner. This student shows how curation tools can of assistance both to *find* information, and be able to *relocate* it, to use Brown (2005)'s term, in the 'ocean of available knowledge'. With regards

to Scoop.it as the chosen tool for these actions, it is interesting to note that the verb to "scoop" was frequently used by the students.

If we consider "to scoop" as the same activity as "to find and save" something, it does not require a high order of thinking skills. However, if we consider it as something that refer to the entire process of content curation, "scooping" becomes much more interesting. This can refer back to why this particular digital curation tool is called Scoop.it in the first place. As mentioned in the introduction, the noun "scoop" can be linked to news defined as "information especially of immediate interest" . It is however also interesting to note another definition of a scoop as a tool used to "dig out and move an amount of something". This definition is mostly used when referring to the tool you use to scoop up a "scoop of ice cream". However, we can perhaps also regard the digital action of scooping as digging something out and move it onto for instance your digital curation page. Furthermore, you need to have a clear purpose with *what* you are looking for and *why*, in order to be analytical towards or evaluate what you find, read and furthermore curate.

5.1.3 Digital curation at the top taxonomic levels

The level of *evaluating (5)* is closely connected to the previous level of *analyzing*, and they can be difficult to separate completely. We also find a clear connection between these two in NCTE's descriptions of what defines a successful digitally literate person in the 21st century (National Council of Teachers of English, 2014). He or she must be able to "manage, *analyze* and synthesize multiple streams of simultaneous information" and to "create, critique, *analyze* and *evaluate* multimedia texts." Again, we find examples of a verb of activity that can belong on multiple levels. This leads us to the perhaps most significant aspect of searching for own reading material on the Internet: source criticism and to what degree they are able to evaluate the information they find. Source criticism also corresponds with Rheingold's emphasis on *critical consumption of information* as one of the five fundamental digital literacies (Rheingold, 2012). As being critical is so important, especially when searching for and evaluating information on the Internet, it was on the one hand unfortunate that I did not focus enough on this when interviewing the students in this research project. However, it may on the other hand make it even more interesting that two of them mentioned being critical by their own initiative. Mia highlighted several times during the interview that this was an important aspect of being a digital curator, and seemed well aware that especially topics like multiculturalism could be written about from both positive and negative perspectives. She

was also concerned with not offending anyone, by for instance rescooping racist videos or articles, which I believe shows a high level of evaluation. Jacob also showed higher orders of cognitive skills when he pointed out that everything that is written, is in fact written by someone with a *message*, and thereby brings attention to not only the isolated texts, but also the author or editor responsible.

However, recognizing the importance of source criticism, and actually being able to work in this manner in practice, is a different other issue. It may perhaps be a paradox that we expect our students to be critical towards information about a topic they know little about in advance. As presented in the analysis, there were not as clear traces of this uttered source criticism in Jacob and Mia's actual insight-comments. On the other hand, it is possible that they had disregarded some of their search results because of a critical evaluation of the source or content, instead of curating them and commenting on these in a critical manner. Regardless, I believe the issue of *crap detection* highlights the significance of a thorough introduction to a given topic *before* allowing the students to get started with curating own resources from the Web. It is also obvious that to evaluate and critically consume information is complex a process that needs to be developed over time, and will not be covered by simply working with digital curation. Therefore, critical literacy is a significant aspect of every school subjects at all levels, and as pointed out by the Ludvigsen committee's preliminary report, "the ability of critical thinking, problem solving, communication and cooperation will become even more important in the future" (Kunnskapsdepartementet, 2014). As a result, evaluating the digital information and resources found online is one of the most significant aspects of being a digital curator.

At the top taxonomic level, *creating (6)*, Anderson and Krathwohl (2001) highlight generating, planning and producing as activities that require the highest level of cognitive skills. Furthermore, blogging, wiki-ing or podcasting are according to Churches (2009) furthermore good examples of appropriate digital activities to reach this top taxonomic step. Based on this research project and my results, I cannot however state that digital curation is especially useful for reaching this level of *creating*. On a blog platform for instance, the user can write longer texts, focus on multimedia features and use the principles of hypertexts to add variation and depth (Otnes, 2009). When using a digital curation tool, the emphasis is on the *selection* of information that is to be displayed, and furthermore how it is commented upon, organized and shared, rather than creating *new* content (Rheingold, 2012). One *can*

however curate own content as well, as seen in figure 2.1, but this is rather considered an additional feature of the curation process. On Scoop.it this is a feature that firstly becomes available in the premium version, which furthermore limits this option for usage in a school context.

In order to *create* at a high level of thinking, one has to rearrange component ideas into a new whole, or simply make an original product (Anderson & Krathwohl, 2001). There will consequently be other more appropriate tools for this than Scoop.it. The *creating* aspect was unfortunately not possible to explore further in a project like this study, as it lasted over a relatively short period of time. However, if you consider a digital curation account to be a web page, and thereby see the presentation of the scoops as *publishing*, curators might touch upon the top taxonomic level. Being publishers is also recognized as a significant aspect of social media in general, and it is even said that "everyone is a publisher and an editor on the Web 2.0" (Krokan, 2012). It is also interesting to note that being able to "cooperate and publish *together* with fellow students, experts or others by using various digital media" are highlighted as one of the *ISTE Standard skills* in the category for communication and cooperation (Kunnskapsdepartementet, 2014, p.149). Consequently, even though digital curation is not proven to facilitate cognitive processes at the highest taxonomic level, it can arguably facilitate learning and promote a variety of aspects of digital literacy at close to all of Bloom's revised taxonomic levels.

5.1.4 Reading and writing on multiple taxonomic levels

Various aspects of digital reading and writing has so far in this discussion been included along the way, as I have attempted to place actions relevant for digital curation on the six different taxonomic levels. As reading and writing are a natural part of several steps of the curation process, as well as one the focus of one of my research questions, I will in the following put more emphasis on findings regarding student experiences of reading and writing in particular.

When searching the Internet for texts to read about a given topic, one will come across texts that can be defined as authentic. As one of the students pointed out in the interview: the texts found online are not adapted to learners at a particular level like those in the textbook. To use Buendgens-Kosten's terminology, this has to with authenticity within three areas: *linguistic autheinticity, cultural authenticity* and *functional authenticity* (Buendgens-Kosten, 2013).

With regards to lingistic authenticity in particular, the students in my interviews said that they had not run into any difficulties with regards to understanding the content or the vocabulary in the texts they read. Neither did they express to have to experience reading hypertexts as challenging, which is probably linked to their digital habits and the fact that teenagers today are used to reading texts on the Internet. This may on the one hand imply that students in their second year of upper secondary school are skilled readers and capable of understanding a variety of texts at different levels from a variety of web pages. On the other hand, I do not believe the experiences of the few can be generalized to the entire class, or the ESL learner in upper secondary school in general. Since the four teenagers that were interviews stood out in the class as particularly hard working and thorough, as mentioned in chapter 3, it is also likely that they are skilled ESL readers. Another reason could be that they simply chose texts within their ZPD, either consciously or by coincidence. I would perhaps have received other results if I had interviewed more of the students from the class, or had I for instance selected from the lower end of the assessment scale.

There are texts at all levels on the Internet that can be perceived as both comprehensible and challenging for the reader based on both his or her competencies and pre-knowledge. As previously mentioned, it is also difficult to tell to what degree the students in this group were actually able to tell the good sources apart from the bad ones in the first place. It is therefore not possible to draw a conclusion on the students' *crap detection* skills based on my material. Consequently, it would have been interesting to explore if there was a students' cognition of differentiating between evaluating the *relevance* of the information, versus the *credibility* of the sources they were looking to curate. This would have been relevant because, as Kiili (2012)'s research has shown: students in upper secondary schools more frequently evaluate relevance rather than credibility when locating information on the Internet.

The writing that takes place on a digital curation platform is open for others to read, like on most social medias. Based on my informants' reflections, it seems that when ESL learners know they are 'scooping' articles or other resources and are to comment on them openly online, they become more critical to the information they collect. This is interesting, because one of the ideas behind connective writing is in fact that students who compose online, learn to think critically because they consider the audience and clarify the purpose (Johnson, 2014). According to Richardson (2010), they also learn to evaluate and synthesize information across multiple sources. Despite the fact that I did not find conclusive support for this, it was

interesting to see how Jacob said that he actually looked up more information about his scoop in order to be able to write a more thorough insight-comment. This implies that digital curation tools can provide a platform where the students must show that they have read something, as well as present their own thoughts about it on their curation portfolio. As a result, the students become more *responsible* for their own digital behaviors. Furthermore, it is likely to assume that the student's perceptions of what is expected from an insight are influenced by several factors. Firstly, and perhaps most importantly, the introduction given by their teacher at the beginning of the project was relevant. However, the teacher did not spend too much time elaborating upon what was expected, so it is likely that the students understanding was also a result of reading other insights.

As a result of this emphasis on reading and writing, combined with digital skills, I believe my study shows that digital curation can be a valuable approach to combine and promote these three aspects. Even though writing, as an activity, did not turn out to receive a great amount of attention, I believe there are still potentials here that are waiting to be explored. To show the connection between these three skills, I have developed the figure below for the purpose of this thesis:

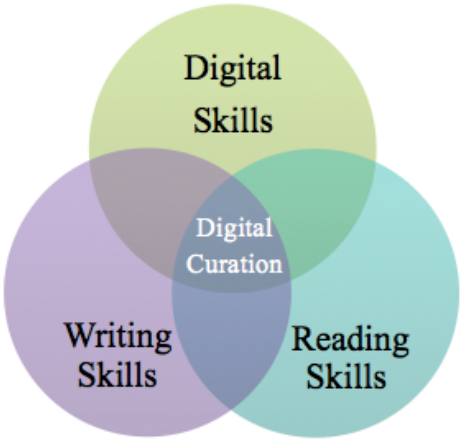

Figure 5.1: The basic skills of digital curation

Consequently, I believe my study shows that digital curation can be a method to promote reading, writing and digital skills as basic skills in English. Especially with regards to digital skills, it is easy to find support for the statement that digital curation tool can promote skills to "use a varied selection of digital tools, media and resources to assist in language learning, to communicate in English and to acquire knowledge" (Utdanningsdirektoratet, 2006a). I have

also illustrated and proven that the acts of digital curation can take place at various taxonomical levels.

I am well aware that it is not enough for the students to simply *say* that they have understood which actions that take place. Actually preforming them in a thorough manner is a very different aspect. Having understood that one is supposed to for instance *write* or *publish* something, and actually being an active participant in a digital society, is not an advancement that happens automatically. As Rheingold points out, participation can start as lightweight activities such as tagging, liking and bookmarking, and then develop into to higher engagements with curation, commenting and community organizing (Rheingold, 2012, p.147). It takes time to reach higher orders of thinking, and it would have been interesting to explore this over a longer period of time than what was possible in this particular research project. I will reflect further upon limitations such as these in the conclusion (section 6.2). Nevertheless, when comparing the verb results in my study to Churches (2009)' list of digital actions, I have come to find that content curation can to some degree in fact open up for activities at all of Bloom's revised taxonomic levels. This means that my findings from this study can not only be linked to the various taxonomic levels, but simply point to an overall finding that digital curation as method of education can be supported by the well known Bloom's Taxonomy. As a result, I believe that this supports both why and how digital curation can function as a suitable didactical approach in the ESL to promote a variety of digital literacies. With regards to communication and collaboration literacies in particular, we shall now take a closer look at one of the key elements of curation: developing a Personal Learning Network.

5.2 Networked Learning and Digital Curation

Based on my respondents' reflections, it seemed that being able to see what others in their network, or Scoop.it community, had curated was considered useful for their own learning process. One of the students from the interviews pointed out that because online search results might be overwhelming at times, it was useful to see what others had found interesting and narrow down a focus area. This implies that the networked aspect of curation can help them with information navigation, which is an important competence in the knowledge era (Brown, 2005). The student believed a curation network could make his learning more *efficient*, as well as make him able to retrieve *more relevant knowledge* in a *shorter amount of time*. This

is a particularly interesting finding, as the connectivist theory of networked learning is built upon the idea that networks are collectively smarter than individuals. To use Rheingold's terminology, this interviewed student is being *net-smart* (Rheingold, 2012). In a networked learning process, *collaboration* is also relevant. Even though the students did not directly collaborate with their scoops or their insights, I have found that the students experienced it as useful to see what peers both had curated and written as their insights on Scoop.it. This is also supported by the ideas of *connectivist learning,* as a PLN is not only focused on the *access* to information, but just as much on *communication* and *sharing* your knowledge (Krokan, 2012). In this manner, the students will not only get access to a network of curators, but also to each other's knowledge on a digital platform.

When I examined the students' Scoop.it accounts, I found that most of their communities were networks with other students from the class. This was not surprising, as they were instructed by their teacher to follow each other and establish a community on Scoop.it. The teacher mentioned that they could follow other curators as well, but not many had done so. I believe there could be several reasons for this. Firstly, as they were not specifically instructed to include curators "outside the classroom," the students might not find it necessary to do so. It is likely to believe that their emphasis was on finding interesting resources to read and scoop, and not to follow those who had scooped or rescooped that particular resource already. Secondly, their chosen resource might not be found on Scoop.it at all, since you can curate content from all over the Internet. Thirdly, it is possible that students are so used to looking for information on a specific purpose and for individual use, that they are simply not familiar with finding a selection of sources on a platform where they can save these resources as well. I believe this shows that there is room for development with regards to allowing the students to develop their own Personal Learning Networks, and how digital curation tools can be useful learning tools for the future. This issue will be revisited in section 5.2.2.

Finally, and perhaps most significantly, this research project took place over a relatively short period of time. As a result, I believe this may have influenced the student's ability to look beyond the introductory phase of digital curation, and as such not see the potentials that lie within, for instance, following scholars of a specific field of research and include them in a PLN. Another interesting aspect of this discussion is whether or not we can expect our students to know which curators that are worth having in their PLN. Anyone can create a digital account and curate whatever content they would like, so it might be difficult to

separate the good ones from the bad. Again, *crap detection* and *source criticism* becomes relevant, not only when evaluating the source of the scoops, but also for evaluation the *curator* (Rheingold, 2012). This would demand a high order of thinking, and involve both analyzing and evaluating activities, as discussed in section 5.2 (Anderson & Krathwohl, 2001).

5.2.1 Digital learning environments and the role of the teacher

When recognizing the students as networked learners, an important question arises: how will such a learning environment influence the pedagogical role of the teacher? Even though this has not been a focus area in this thesis, I find it relevant to briefly discuss this aspect here, as what influences the students' learning process will consequently also influence the teacher's role in the 'digital classroom.' As pointed out by Kern, Ware and Warschauer (2004), there has been a key pedagogical change the past decades. We have witnessed a shift away from the traditional teacher's role as the "omniscient informant" and towards a focus on helping students with structuring, juxtaposing, interpreting and reflecting on intercultural experiences that occur through digital networks. The teacher then becomes, in the term of Schwebs and Otnes (2006): "a travel guide in cyberspace" (p. 271). Based on my observations in the classroom it was clear that the students needed both technical and practical help when they first were introduced to digital curation in the ESL classroom. Even though they fairly easily red how to create a curation account, questions regarding how to follow others, create communities and to *scoop* resources quickly appeared. As expected when learners are introduced to something new, they are dependent on guidance, at least at some level, from their teacher. This was also supported by the English teacher in my research project, who said that working with digital curation would require a stronger emphasis on guidance rather than giving lectures or more traditional forms of classroom teaching. However, he also pointed out that his role in the classroom was not *that* different from the regular English classes: giving clear instructions, answering their questions, checking that the students are working on what they are supposed to and making sure they learn something, to the extent that a teacher actually can *guarantee* an educational outcome. The teacher is more passive in some aspects, yet more active in others.

Another aspect of this is that when the students are allowed to choose the texts they want to read for themselves, they do so based on their own criteria, unless stated otherwise by their teacher. In this study, the only instructions given were that these texts should be about the

assigned topic connected to multiculturalism. From a pedagogical perspective and with regards to linguistic authenticity, this means that it will be difficult to make sure that the students are reading texts that are too simple, too difficult, or in the desirable 'Zone of Proximal Development' (Mitchell & Myles, 2004). However, what the students read online can never be controlled by a teacher at all times, certainly not outside the physical classroom. This is also one of the reasons why we cannot avoid digital learning environments in school as well. The students need to develop their own set of *crap-detection skills*, which furthermore will be even more relevant as they graduate upper secondary school and no longer has a teacher to guide them. If the students manage to do so, this will also be valuable to promote their reading skills, as the LK06 points out that they are to "understand, explore, discuss, learn from and reflect upon different types of information" (Utdanningsdirektoratet, 2006a). This also means that there is nothing wrong with curating a resource from a questionable source, as long as the curator recognizes this and makes a critical remark in his or her insight-comment. I believe that the teacher in my research project has embraced his role as a "travel guide in cyberspace," and seemed comfortable with teaching in a digital environment. The teacher also recognized further potentials with digital curation than what was possible to achieve in the short time frame of this particular project. He therefore said that he imagined continuing to use Scoop.it in the following semesters as well, but this was unfortunately not possible to explore as a part of this thesis. I was however able to find out how the students themselves regarded the potentials of using Scoop.it and digital curation in the future, which will be discussed in the next section.

5.2.2 Future use of digital curation cools

One of the long-term objectives of introducing digital curation is for the students to start developing a Personal Learning Network that goes beyond English class or school in general. As Krokan (2012) points out, this might even be what future education will be all about: learning together with others in a network regardless of physical borders. This was however not of explicit emphasis when conducting this project, but regarded as a desirable outcome. The responses given in the interviews point to the students' experiences of their Scoop.it network, or community, as useful in this particular project, but not completely sufficient for future use. A possible reason could be that they based on the research period connected Scoop.it mainly to multiculturalism as a topic, and did not get enough time to get to know the

other possible advantages connected to content curation, such as the benefits of developing a PLN.

All of the interviewed students answered that they thought Scoop.it *could* be useful in English in the future, but that they were not sure if it was going to be relevant for them. Jacob would choose Scoop.it if he was going to look for different opinions about something, which can indicate a recognition of the knowledge that lies in other curator either in his PLN or in the Scoop.it network in general. It was also interesting to find that even though Mia considered it possible to use Scoop.it in future educational contexts, she ruled out using Scoop.it on her spare time. I believe this is understandable, as the emphasis in the project period had been on school-related topics. Scoop.it also appears to have an academic layout, at least compared to Pinterest or Pocket, which may have influenced this students' academic experience of the tool. It could on the other hand also be that they simply did not find Scoop.it that useful as general approach to digital work.

Eric pointed out that he had his own methods for digital work, which illustrates that there are so many digital tools, including curation tools, to choose from, that they might simply have to choose the ones they prefer. Do they simply know of so many different digital tools and approaches as 'digital natives' that they have developed a strong sense of individual preferences? Or do they not reflect upon the stream of information as a challenge? As teachers, we can only make recommendations, but in the end, the students must be allowed to choose their own digital tools and study techniques. We cannot instruct our students to develop their own Personal Learning Network if we do not allow them to make it, indeed, personal. To conclude this argument, I believe the students only had the time to get a taste of the possibilities of digital curation and thereby just an idea of how it can be useful for them in the future. With regards to learning tools, there will always be individual differences and preferences, and the students need to find their own. Some feel the need to work in a structured manner, while others do not. It is therefore likely to assume that digital curation can also be perceived as a study technique in an isolated context, unless integrated in as an approach like in this study. Again, this is one of the many interesting aspects of digital curation and ESL learners that are waiting to be explored.

5.3 Chapter Summary

In this chapter, I have discussed my findings based on the theoretical framing and my own reflections. I have done so in two main focus areas: digital curation at different taxonomic levels combined with reading and writing (5.1), and digital curation and networked learning combined with the potentials of future use (5.2). In the first sections, I have argued that different digital actions that take place in a digital curation context can be placed at the taxonomical levels of Bloom's Revised Taxonomy. This is one of the aspects that support digital curation as an approach in the ESL classroom. I have also presented arguments for why I believe digital curation can be a valuable approach to combine and promote reading, writing and digital skills as basic skills in English, which furthermore was illustrated in figure 5.1. Furthermore, I have presented how the Scoop.it network were experienced as useful by the students to find articles about their give topics, as well as to see what their peers had scooped and written in their insight-comments. However, I have also argued that the full potentials of PLNs were not explored in this study, and is therefore one of the aspects that would be relevant for future research. With these findings and reflections in mind, it is time to revisit the research questions form the introduction, and conclude my entire study.

6. Conclusion and Final Remarks

This research project set out to explore how ESL learners in upper secondary school understand and experience digital curation, and how it furthermore can be a useful method to learn English and promote digital literacy. Digital literacy is in this thesis defined in the theoretical framing as the skills and strategies needed to use and adapt to the developing ICTs of the 21st century, such as comprehension, collaboration and critical thinking. My study can thereby be characterized as digital literacy research, since it has explored how people find, use, summarize, evaluate, create and communicate while using digital technologies. The Internet has given us close to limitless access to information, yet this information only becomes knowledge when it is used for a purpose. Access will at no point become a substitute for experience, understanding and expertise. Achieving this takes time, and the classroom is a great place to start, with digitally enabled teachers guiding the students in the process. As a result of this study, I believe digital curation can be a valuable approach to help our students learn how to structure this information flow, and strengthen their digital literacy in the process. Furthermore, as my research process has come to an end, I will in the following conclude my study by firstly revisit my research questions. I will secondly present some of the study's limitations and suggestions for further research, and thirdly present some final remarks at the end of this last chapter. Even though it was no surprise: digital curation turned out to be both an interesting and extensive field of study.

6.1 Research Questions Revisited

This research did not set out to find answers that could be generalized or transferred to all ESL learners in upper secondary school. Nor did I expect to find results of solely positive student experiences, or conclude with a guaranteed learning outcome. Still, I believe that I have met my objective of gaining a deeper insight into a group of student's experiences of digital curation, and how it can be useful to promote various aspects of digital literacy and knowledge relevant for the English subject. I furthermore believe to have discovered interesting answers to my research questions, so in order to illustrate: let us revisit and explore my findings linked to the research questions that were outlined in the introduction.

So (1) *how do students understand and experience being digital curators?* The students in this study had a brief yet positive experience with being digital curators. They seemed to

value Scoop.it as tool to both find information and learn about the topic of multiculturalism, and they understood the act of digital curation as searching, finding, reading, scooping, writing and sharing digital material. In order to dig deeper into this, I raised the question of: (2) *to what degree do students find developing their own Personal Learning Network useful?* Based on my research, I believe that the students to some degree experienced the potentials that lie within this approach to learning, but that they did not get enough time to explore it properly. They expressed that they found it useful to see what other curators in their network had scooped and written, yet the majority of the students had not included people outside the classroom in their PLNs. As a result, seeing what their peers had written as insight-comments was what they valued the most in the beginner's phase of digital curation. The students did however recognize the possibilities of further expanding their networks, which points to an interesting start of developing PLNs as a step in a valuable lifelong learning process. But (3) *how do students reflect upon reading and writing online as a part of the digital curation process?* I have found support that digital curation can be the starting point for both reading and writing in the target language, and consequently be an approach to communicate and acquire knowledge in English. Being able to choose own digital texts to read seemed to have a motivational effect on the students, and being asked to write insight-comments appeared to make them more critical to what sources they curated. Furthermore, the student comments can take place at various taxonomic levels, which supports my finding of how digital curation can facilitate learning and promote various aspects of digital literacies.

When we put these aspects together, I believe I have found evidence that digital curation can be useful to promote various digital literacies, which brings me over to revisiting the main research question: *How can digital curation support the promotion of digital literacy among ESL learners in upper secondary school*? Based on the students' own words, I found that the students quickly understood the various activities involved in digital curation, where these activities furthermore can be used to promote skills such as searching, finding, sharing, commenting, reading and writing. These skills are also closely linked to digital literacies such as collaboration, comprehension and critical thinking, which are significant literacies for the 21st century learner. I believe that this can be seen in the light of a digital taxonomy, which means that my findings from this study can not only be linked to the various taxonomic levels, but also that digital curation as a method in education can be supported by Bloom's Revised Taxonomy. I also believe the students only had the time to get a taste of the

possibilities when being digital curators and furthermore just got to see the contours of how to make use of digital curation tools for future learning processes. Consequently, there is still a great deal of potential linked to digital curation that is waiting to be explored.

6.2 Limitations of this Study and Suggestions for Future Research

Despite a thorough research process and interesting results, there are several limitations of this study that merit attention. Some are not naturally not realistic to explore due to time- and space limitations of an MA thesis, while others are simply a consequence of having chosen an interesting research area where many aspects would have been possible to explore further.

- **Learning outcome:** As my study was concerned with student *understanding* and *experiences,* it is difficult to say something about their actual learning outcome of this project. Even though the students was going to learn about *multiculturalism*, this has not been given a high degree of attention, as I did not set out to explore *what* the students learned, but rather *how* they experienced the learning process. It may therefore have been interesting to conduct a similar project with a variety of topics over a longer period of time, for instance throughout the school year, in order to search for knowledge development among the students, both as students of English and as digital curators.
- **Assessment:** With regards to assessing digital writing, this is also an aspect that would have been interesting to explore further, as I was only able to briefly touch upon this when observing the group talk assessment at the end of the project. It is my understanding that assessment linked to digital work is considered challenging by many teachers. It would therefore have been interesting to explore how one can assess students' abilities as digital curators, their presentation of the collected resources, or their writing skills in a social media context.
- **Other digital curation tools:** This study relied entirely on using *Scoop.it* as a digital curation tool. It would therefore have been interesting to see if the students would have experienced other content curation tools differently, such as for instance Pocket, Diigo, Pinterest, Evernote or even Twitter.
- **Source criticism:** The issue of source criticism turned out to be more interesting than I anticipated before conducting the research project. As this was not one of my main focuses when collecting the empirical data, I had limited material on this issue.

Consequently, this is an aspect of digital curation as well as digital literacy in general, that would be relevant to explore further, for instance with Rheingold's term *infotention* as a starting point.

6.3 Final Remarks

Based on the results from my enquiries and the reflections I have made during this research process, I believe I have found valuable support for digital curation as a method to promote digital literacy among ESL learners. For me personally as a teacher, it has strengthened my belief that promoting digital literacy is something highly significant for all levels, and given me inspiration to use digital curation as an approach for teaching a variety of topics and skills. I additionally hope that my study can contribute with an increased awareness of the possibilities that lies within digital work in the ESL classrooms, both with regards to teaching, but also in the teacher's own pedagogical digital competence. Perhaps my thesis can inspire other teachers to try Scoop.it or other digital curation tools in their classrooms as well. The field of education and research will be continuously developing along with the changes in our society, as it should, in order to find the best didactical methods to use in our classrooms. Even though we as teachers can never guarantee an educational outcome of all the activities we engage our students in, we can do our best to give them our best guidance and the tools necessary to promote lifelong learning; a critical voice, a collaborative spirit, and the digital skills needed to successfully adapt to the rapid changes of ICT in the 21st century society. As stated in the introduction, knowing how to make use of the Internet and online tools without being overloaded with too much information is an essential ingredient to being digitally literate in the 21st century. In this manner, I believe digital curation can provide a valuable contribution to contemporary schools that aim to have an active, yet critically conscious relationship to the new technologies, and to teachers who value the potentials in the encounter between the school's traditional form of education and a digital culture. I started this thesis with the words of John Dewey (1916), and I will conclude with the same words, as I believe they will never lose their importance and value: "If we teach today's students as we taught yesterday's, we rob them of tomorrow."

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Appendix 1: Letter of permission from NSD to collect data

Norsk samfunnsvitenskapelig datatjeneste AS
NORWEGIAN SOCIAL SCIENCE DATA SERVICES

NSD

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N-5007 Bergen
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Hildegunn Otnes
Program for lærerutdanning NTNU

7491 TRONDHEIM

Vår dato: 19.11.2014 Vår ref: 40363 / 3 / SSA Deres dato: Deres ref:

TILBAKEMELDING PÅ MELDING OM BEHANDLING AV PERSONOPPLYSNINGER

Vi viser til melding om behandling av personopplysninger, mottatt 18.10.2014. Meldingen gjelder prosjektet:

40363	*Engelsk fag- og yrkesdidaktikk*
Behandlingsansvarlig	*NTNU, ved institusjonens øverste leder*
Daglig ansvarlig	*Hildegunn Otnes*
Student	*Lena Øyre Leirdal*

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

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

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

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

Personvernombudet vil ved prosjektets avslutning, 15.06.2015, rette en henvendelse angående status for behandlingen av personopplysninger.

Vennlig hilsen

Kathrine Utaaker Segadal

Sondre S. Arnesen

Kontaktperson: Sondre S. Arnesen tlf: 55 58 33 48
Vedlegg: Prosjektvurdering
Kopi: Lena Øyre Leirdal lenaole@stud.ntnu.no

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
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Appendix 2: Letter of information to the participants

Førespurnad om deltaking i forskingsprosjektet

”Scoop.it og skriving i engelskfaget”

Bakgrunn og føremål

Mitt namn er Lena Øyre Leirdal og eg er masterstudent som studerer engelsk fagdidaktikk ved NTNU, Program for lærarutdanning.

I samband med mi masteroppgåve skal eg gjennomføre eit prosjekt der eg ynskjer å undersøke korleis elevar på Vg2 i programfaget ”International English” kan arbeide med digitale tenester for å fremme sin skrivekompetanse og digitale kompetanse i engelskfaget. Fokuset mitt vil vere retta mot bruk av den digitale samletenesta Scoop.it, der ein kan lese artiklar og liknande på nett, lagre desse på eigen brukarplatform, samt skrive innsiktskommentarar til sine funn.

Kva inneberer deltaking i studiet?

Deltaking i dette studiet vil for deg som elev gå ut på at eg kan bruke dine kommentarar og ditt utval av artiklar i din Scoop.it konto som ligg opent på nett som datamateriale i mi masteroppgåve. Eg ynskjer også å bruke svara dine på ITL undersøkinga. I tillegg vil deltaking for deg bety å vere med på eit intervju på kring 20-30 min. Dette vil vere ein samtale om korleis du har opplevd å arbeide med Scoop.it i engelskfaget, og kva tankar du har om korleis dette kan påverke eller hjelpe din skrivekompetanse/digitale kompetanse i faget. Det vil ikkje vere naudsynt med førebuing før samtalen/intervjuet. Alt som vert brukt vil bli referert til anonymt.

Kva skjer med informasjonen?

Det er heilt frivillig å delta, og du kan kva tid som helst trekke ditt samtykke. Alle eventuelle personopplysningar blir behandla konfidensielt, ditt namn vert anonymisert og skal ikkje publiserast. Det vil bli teke lydopptak under intervjua som berre eg vil ha tilgang til, og dei vil bli sletta med det same prosjektet er avslutta i mai 2015. Prosjektet er både meldt til og godkjent av Personvernombudet for forsking, Norsk samfunnsvitskapleg datateneste AS.

Spørsmål?

Om du har spørsmål til studiet er du velkommen til å ta kontakt med meg: Lena Øyre Leirdal, tlf: 97182978, e-post: lenaole@stud.ntnu.no, eller min rettleiar: Hildegunn Otnes, tlf: 73596636, e-post: hildegunn.otnes@plu.ntnu.no.

Eg, _____ (namn) stadfestar med dette at eg har fått informasjon om prosjektet ”Scoop.it og skriving i engelskfaget” og at eg er villig til å delta.

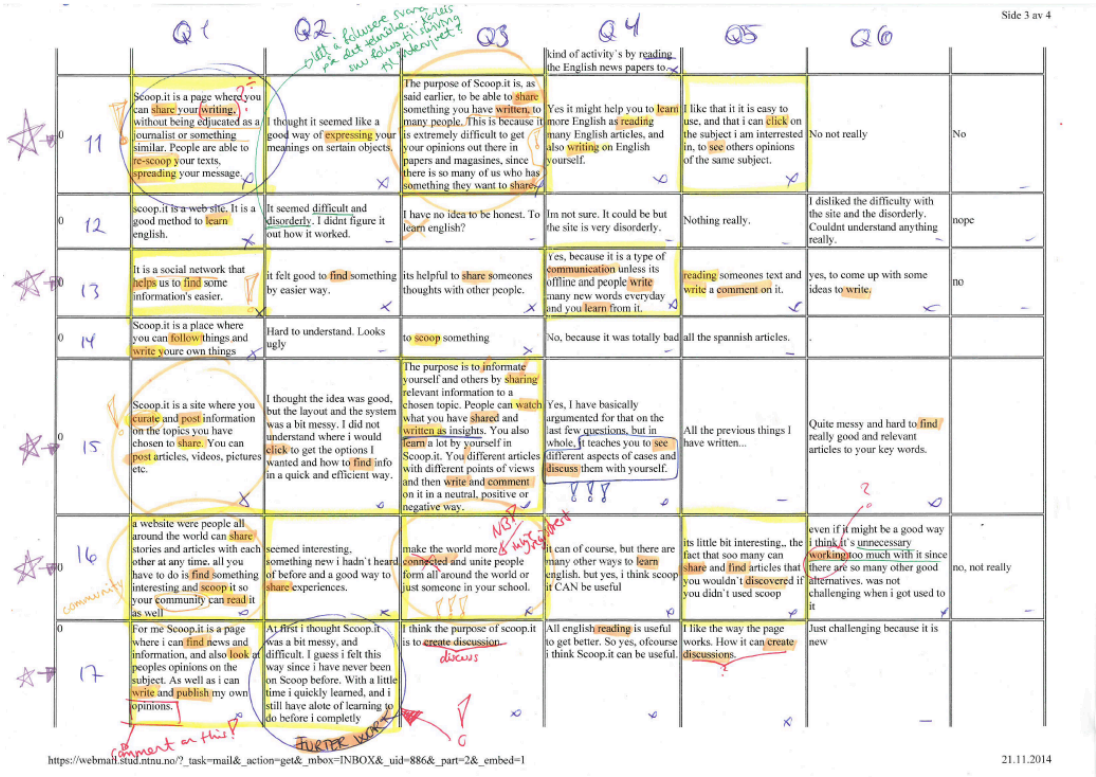
Dato:_____Signatur:_____

Appendix 3: Survey

3a) Survey Questions

Question
Q1: In your own words, what is Scoop.it?
Q2: What was your first impression when you were introduced to the program?
Q3: In your own words, what is the purpose of Scoop.it?
Q4: Do you think Scoop.it can be useful to learn more English? Why/why not?
Q5: What do you like about working with Scoop.it?
Q6: Anything you dislike or find challenging? If so, what?
Q7: Other comments?

3b) Survey Material[21]



	Q1	Q2	Q3	Q4	Q5	Q6	
				kind of activity´s by reading the English news papers to.			
11	Scoop.it is a page where you can share your writing, without being edjucated as a journalist or something similar. People are able to re-scoop your texts, spreading your message.	I thought it seemed like a good way of expressing your meanings on sertain objects.	The purpose of Scoop.it is, as said earlier, to be able to share something you have written, to many people. This is because it is extremely difficult to get your opinions out there in papers and magasines, since there is so many of us who has something they want to share.	Yes it might help you to learn more English as reading many English articles, and also writing on English yourself.	I like that it it is easy to use, and that i can click on the subject i am interrested in, to see others opinions of the same subject.	No not really	No
12	scoop.it is a web site. It is a good method to learn english.	It seemed difficult and disorderly. I didnt figure it out how it worked.	I have no idea to be honest. To learn english?	Im not sure. It could be but the site is very disorderly.	Nothing really.	I disliked the difficulty with the site and the disorderly. Couldnt understand anything really.	nope
13	It is a social network that helps us to find some information's easier.	it felt good to find something by easier way.	its helpful to share someones thoughts with other people.	Yes, because it is a type of communication unless its offline and people write many new words everyday and you learn from it.	reading someones text and write a comment on it.	yes, to come up with some ideas to write.	no
14	Scoop.it is a place where you can follow things and write youre own things	Hard to understand. Looks ugly	to scoop something	No, because it was totally bad	all the spannish articles.		
15	Scoop.it is a site where you curate and post information on the topics you have chosen to share. You can post articles, videos, pictures etc.	I thought the idea was good, but the layout and the system was a bit messy. I did not understand where i would click to get the options I wanted and how to find info in a quick and efficient way.	The purpose is to informate yourself and others by sharing relevant information to a chosen topic. People can watch what you have shared and written as insights. You also learn a lot by yourself in Scoop.it. You different articles with different points of views and then write and comment on it in a neutral, positive or negative way.	Yes, I have basically argumented for that on the last few questions, but in whole, it teaches you to see different aspects of cases and discuss them with yourself.	All the previous things I have written...	Quite messy and hard to find really good and relevant articles to your key words.	
16	a website were people all around the world can share stories and articles with each other at any time. all you have to do is find something interesting and scoop it so your community can read it as well	seemed interesting, something new i hadn´t heard of before and a good way to share experiences.	make the world more connected and unite people form all around the world or just someone in your school.	it can of course, but there are many other ways to learn english. but yes, i think scoop it CAN be useful	its little bit interesting., the faet that soo many can share and find articles that you wouldn´t discovered if you didn´t used scoop	even if it might be a good way i think it´s unnecessary workingtoo much with it since there are so many other good alternatives. was not challenging when i got used to it	no, not really
17	For me Scoop.it is a page where i can find news and information, and also look at peoples opinions on the subject. As well as i can write and publish my own opinions.	At first i thought Scoop.it was a bit messy, and difficult. I guess i felt this way since i have never been on Scoop before. With a little time i quickly learned, and i still have alote of learning to do before i completly	I think the purpose of scoop.it is to create discussion.	All english reading is useful to get better. So yes, ofcourse i think Scoop.it can be useful.	I like the way the page works. How it can create discussions.	Just challenging because it is new	

[21] This is a scanned version of the printed survey material that shows how I used color codes when analyzing the data. The column to the left shows the number of the respondent, and the row at the top refers to the questions from Appendix 3a.

Appendix 4: Interview guide for the student interviews

Innleiingsfase:

1) Kort om meg sjølv og presentere føremålet med intervjuet
2) Køyrereglar → Alle innspel er velkomne, og elevnes eigne meiningar skal komme fram. Opplyse om at eg likevel vil avbryte og spore fokuset tilbake dersom me kjem utanom temaet, eller må gå vidare på grunn av tida.
3) Opplyse om bandopptak (blir sletta etter eg har skrive det av. Garanti for anonymitet. Eleven kan avbryte kva tid som helst, er 100% frivillig. Vare kring 20-30 min.

Introduksjonsspørsmål: (Enkle og korte spørsmål først)

- Med dine eigne ord: kva er Scoop.it?
- Korleis har det vore å arbeide med Scoop.it?

Hovudfase del 1: **Digital kuratering**

- Hugsar du ordet ”kuratering” og kva det betyr? Kva legg du i så fall i det omgrepet?
- Korleis opplevde du det å ha ein eigen Scoop.it konto?
- Korleis brukte du Scoop.it til å førebu deg til gruppesamtalen?
- Kva betyr det å ha eit nettverk?
- Kva tankar gjorde du deg undervegs i arbeidet?
    - Kva opplevde du som lærerikt?
    - Kva opplevde du som utfordrande?
- Kva skil å finne artiklar o.l gjennom Scoop.it og andre søkekjelder, til dømes Google?
- Kva type artiklar las du?
    - Kva tenkte du om vanskelegheitsgraden på desse?
- Kva rolle spela nøkkelord når du skulle søke etter kjelder?
    - Kan du gi døme på nøkkelord du brukte?
- Trur du det å samle artiklar og ressursar i Scoop.it kan nyttig for deg i Engelskfaget? I så fall, på kva måte?
- Brukar du andre digitale verktøy i engelskfaget? (Andre fag?)

→ Overgangsspørsmål: Dersom me no peilar fokuset enda meir inn på skriving…

Hovudfase del 2: **Skriving og lesing → literacy**

- De vart bedt om å skrive innsiktskommentarar i Scoop.it. Med dine eigne ord, kva er det?
    - Korleis tolkar du ordet ”innsikt”?
    - Korleis tolkar du ordet ”kommentar”?
- Kva la du vekt på når du skulle skrive desse?
- Er det forskjell på ein innsiktskommentar og kommentarar andre stadar på nett? Til dømes Facebook eller kommentarfelt på nettaviser?
- Har du lese nokon av dei andre i nettverket ditt sine innsiktskommentarar?
- Kva tankar gjorde du deg om det å dele ditt skrivearbeid opent på nett?
    - Kva har dette å seie for måten du arbeider med skriving på?
- Er digitale kurateringstenester slik som Scoop.it noko du ser føre deg å bruke vidare/i framtida? I så fall, på kva måte?

Oppsummering/avslutningsfase:

1) Byrje å runde av og gjere deltakaren klar over at intervjuet snart er over.
2) Oppsummering ved å seie at ”Viss eg har forstått deg rett, så…”
3) La eleven seie nokre korte oppsummerande ord.
4) Noko eleven vil legge til som me ikkje har vore inne på? Finst det meir som burde ha vore diskutert?

Tusen takk for hjelpa! ☺

Appendix 5: Interview guide for interviewing the teacher

Introduksjonsspørsmål:

- Kan du fortelle litt om korleis har du la opp og gjennomførte Scoop.it prosjektet med klassen din?
- Kva erfaringar hadde du med Scoop.it i forkant av dette prosjektet?
- Korleis ser du på Scoop.it som eit digitalt kurateringsverktøy?

Digital kuratering:

- Kva tenker du om digital kuratering som ein arbeidsmåte i engelskfaget?
- Korleis opplevde du at dette fungerte for din klasse?
- Kva er spesielt for di rolle som lærar når elevane arbeider på denne måten i faget?
- Kva tenker du om dette med at elevane laga sitt eige personlege læringsnettverk?
- I kva grad tenker du at arbeid med digital kuratering vere nyttig for å styrke elevanes digitale kompetanse?

→ Overgang: Dersom me no peilar fokuset enda meir inn på skriving i engelskfaget…

Skriving:

- Meir spesifikt retta mot styrking av elevanes lese-og skrivekompetanse, kva moglegheiter tenker du ligg her?
- Korleis opplevde du at dette gjaldt dine elevar?
- Kva tankar har du gjort deg kring dette med at elevane skulle skrive innsiktskommentarar?
- Kva utbytte opplevde du at elevane fekk frå å skrive desse?
- Har du gjort deg nokre tankar om ein eventuell skilnad på arbeidet til sterke kontra svake elevar med omsyn til utbyttet av denne skrivinga?
- Kva rolle har du som lærar i elevanes skrivearbeid generelt?
- Kva rolle har du knytt til skrivearbeid gjennom Scoop.it?
- På kva måte skil desse rollane seg frå kvarandre?

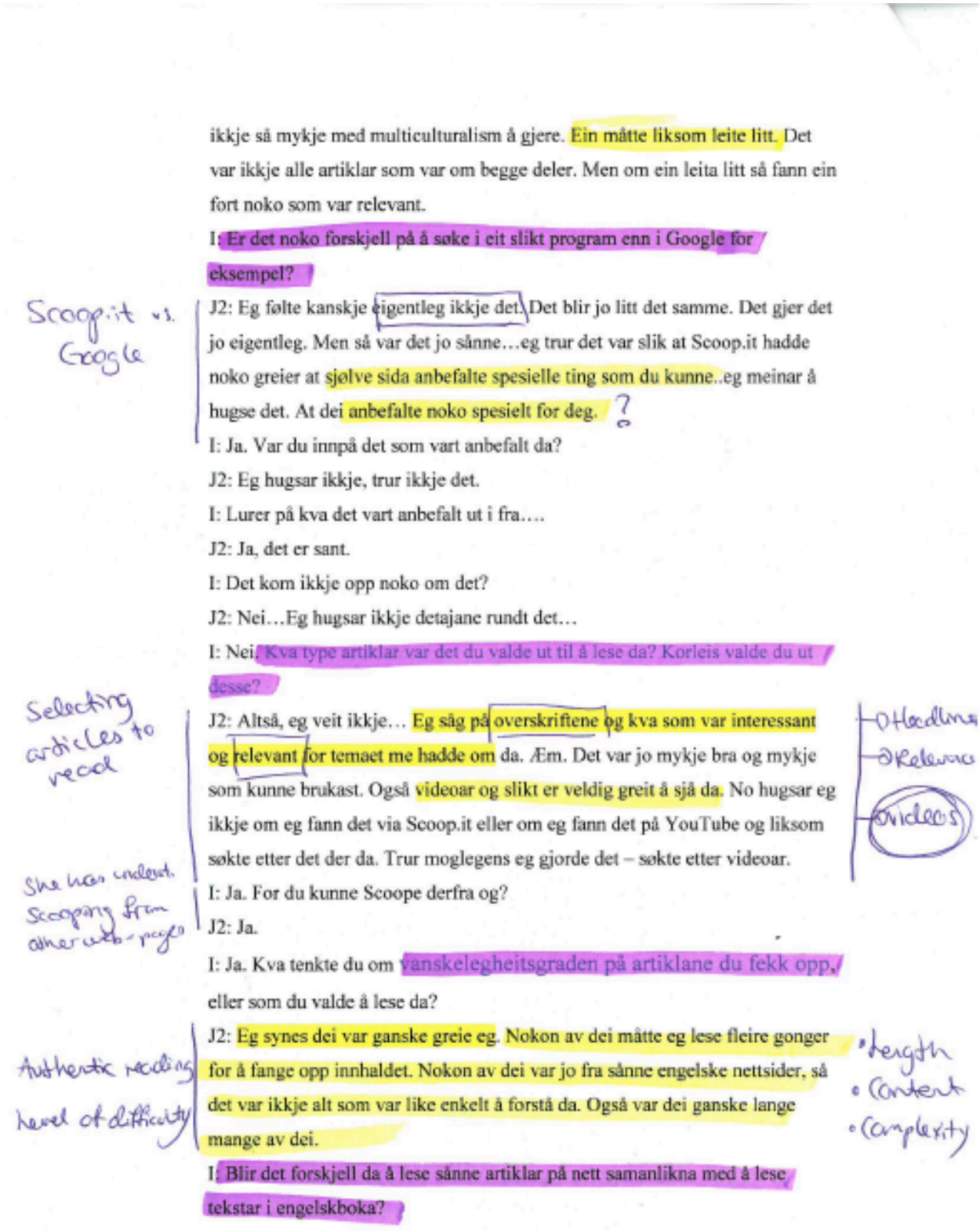
Samla sett:

- Kva opplevde du som utfordrande for elevane?
- Kva opplevde du som positivt for elevane?
- I kva grad finn ein støtte for ein slik arbeidsmåte i læreplanen/kompetansemåla?

Avsluttande spørsmål:

- Kjem du til å halde fram med å arbeide med Scoop.it med denne klassen?
- Er det noko du vil gjere annleis ein eventuell neste gang? Anten med denne gruppa eller ei anna?
- Samla sett: I kva grad meinar du det er hensiktsmessig å arbeide med digital kuratering i engelskfaget?

Appendix 6: Coding the transcribed material



ikkje så mykje med multiculturalism å gjere. Ein måtte liksom leite litt. Det var ikkje alle artiklar som var om begge deler. Men om ein leita litt så fann ein fort noko som var relevant.

I: Er det noko forskjell på å søke i eit slikt program enn i Google for eksempel?

Scoop.it vs. Google

J2: Eg følte kanskje eigentleg ikkje det. Det blir jo litt det samme. Det gjer det jo eigentleg. Men så var det jo sånne…eg trur det var slik at Scoop.it hadde noko greier at sjølve sida anbefalte spesielle ting som du kunne..eg meinar å hugse det. At dei anbefalte noko spesielt for deg. ?

I: Ja. Var du innpå det som vart anbefalt da?

J2: Eg hugsar ikkje, trur ikkje det.

I: Lurer på kva det vart anbefalt ut i fra….

J2: Ja, det er sant.

I: Det kom ikkje opp noko om det?

J2: Nei…Eg hugsar ikkje detajane rundt det…

I: Nei. Kva type artiklar var det du valde ut til å lese da? Korleis valde du ut desse?

Selecting articles to read

J2: Altså, eg veit ikkje… Eg såg på overskriftene og kva som var interessant og relevant for temaet me hadde om da. Æm. Det var jo mykje bra og mykje som kunne brukast. Også videoar og slikt er veldig greit å sjå da. No hugsar eg ikkje om eg fann det via Scoop.it eller om eg fann det på YouTube og liksom søkte etter det der da. Trur moglegens eg gjorde det – søkte etter videoar.

- Headline
- Relevance
- Videos

She was ordered. Scooping from other web-pages

I: Ja. For du kunne Scoope derfra og?

J2: Ja.

I: Ja. Kva tenkte du om vanskelegheitsgraden på artiklane du fekk opp, eller som du valde å lese da?

Authentic reading level of difficulty

J2: Eg synes dei var ganske greie eg. Nokon av dei måtte eg lese fleire gonger for å fange opp innhaldet. Nokon av dei var jo fra sånne engelske nettsider, så det var ikkje alt som var like enkelt å forstå da. Også var dei ganske lange mange av dei.

- length
- Content
- Complexity

I: Blir det forskjell da å lese sånne artiklar på nett samanlikna med å lese tekstar i engelskboka?

Appendix 7: Categorizing transcribed material

Informants → / Sub-categories:	Jacob	Eric	Nina	Mia
Understanding of Scoop.it	"Scoop er jo ein plass der person kan legge ut artiklar og få svar frå ekte folk som bryr seg, folk som har lyst å lese artiklar som faktisk betyr noko, og ikkje berre artiklar som ein finn på Facebook som vert spamma heile tida. Ein nettstad der folk som bryr seg om nyhende kan diskutere det som skjer rundt om i verda."	"Scoop.it - det eg får inntrykk av er at det er ein slags form for sosial media der ein kan dele kunnskap, dele fakta, dele artiklar. Får inntrykk av at dei har linka søkeorda opp mot kjelder som er ganske…reknar for å vere påliteleg. Og legge inn eigne kommentarar på det. Kva ein syns om dei – kritikk eller positive kommentarar om artikkelen ein deler. Får eg inntrykk av da. Og ja. Det er mitt inntrykk av Scoop.it	"Eg vil tru at…eg har ikkje heilt forstått meg på Scoop.it da, men eg vil tru det er ei slags kjelde der du kan finne informasjon og artiklar om eit emne da. Sånn som me holdt på med multikult… multiculturalism. Eg kjem ikkje på kva det er på norsk. Så kan du finne artiklar som er relatert til emnet, og også sjå folk sine meiningar om det. Også uttrykke eigne meiningar om dei ulike artiklane da.	"Ja, altså det er jo på ein måte ein plass der du kan samle mykje informasjon frå nettet med forskjellige tema, og at du kan samle informasjon ein plass og liksom dele med andre. Og skrive dine eigne tankar rundt det. Også det å finne informasjon om eit spesielt tema så kan du søke det opp via Scoop.it"
Main category: Digital literacy				
Digital accounts	"På nettaviser kan du lage det brukar så fort (*knipsar*), men på Scoop.it tek det faktisk litt tid liksom. Det verkar litt seriøst, at du måtte ta deg litt tid til å lage brukaren på ein måte. Men på VG eller Adressa kan du lage deg ein brukar med ein gong, du kan vere anonym også og berre kommentere. Det er ikkje alle som kommenterer like seriøst da. Igjen vil eg seie at det er skilnad på seriøsitet."	"No har eg konto på veldig veldig veldig mange ulike sider, og sånn som det, så eg tenker eigentleg ikkje noko over det. Eg bevegar meg veldig mykje forskjellig i ulike sosiale media og har brukarar på mange ulike nettsider og sånn som det. Kva synes eg om det: eg vil seie eg har ein heilt nøytral meining om det."	"Eg synes det var bra. Eg fann fram det eg synes var bra av artiklar og kunne dele det vidare. Det er jo ikkje alle som har lik meining om artiklar og sånn da. Så da kan dei som til dømes er einige da, følgje. Det blir litt som Twitter på ein måte da. Dersom nokon likar det eg skriv så kan dei på ein måte følgje med vidare, viss dei føler dei er litt i same retning som meg da."	"Ja, det var jo greit eigentleg. Altså korleis det var å jobbe med det liksom? Det var litt sånn uoversiktleg sånn i starten kanskje, men det var ganske greit eigentleg. (…) Ja, altså, det var litt vanskeleg å finne fram på sida og sånn da. Den var ikkje så veldig brukarvenleg kanskje. Men eg fann utav det til slutt. (…) Altså, du.. som sagt så fekk du lese artikkelen, også fekk du jobbe med den etterpå. Også kan du sjå litt på kva andre har skrive også, og hente inspirasjon derfrå."