

## **“You get what you need”. Students’ attitudes towards using Wikipedia when doing school assignments**

Marte Blikstad-Balas

Associate Professor

Institute of teacher education and school research

Department of Educational Sciences – University of Oslo

### **Abstract**

*In traditional classrooms, a textbook was often the only source of knowledge available; in stark contrast, today’s classrooms have an almost infinite number of knowledge sources available through the Internet. Nevertheless, a range of studies confirm that students systematically tend to favor the online encyclopedia Wikipedia in their school-related literacy practices. The present study investigates this tendency among students in upper secondary school (aged 18-19 years), using a survey with multiple choice and open-ended questions. The main finding suggests that students favor Wikipedia because the site provides them with exactly what they need, being fast, flexible, and easy to use. At the same time, students are aware of most credibility issues associated with Wikipedia. A suggested discrepancy between students’ positive attitudes to including Wikipedia in their school-related literacy practices, and their teachers’ lack of approval of this particular knowledge source, is addressed in the discussion.*

**Keywords:** school literacy; laptops; Wikipedia; ICT in education

### **Introduction**

How students read and write—and for what purposes—is a topic that should intrigue all educational researchers. For quite some time, the “transmission model” (Wade & Moje, 2000) has been the dominant approach to teaching both reading and subject area content (Alvermann & Moore, 1991; Cuban, 1983; Goodlad, 1984). From this perspective, the role of texts and teachers is simply to transmit a large body of official knowledge and skills to the students. Traditionally, the textbook has not only been the teacher-appointed official source of school-related knowledge, but the only actual choice available. Put simply, students more often than not read textbooks for the sole purpose of documenting that they had in fact “achieved” whatever knowledge the book described. As Säljö (2010) also emphasized, a large body of research has repeatedly indicated that memorizing and reproducing text content have been essential aspects of educational literacy practices. The text to be memorized has often been in a textbook, which has a rather strong hegemonic status in most school systems (Blikstad-Balas, 2014). This might still be the case in many classrooms, but with the massive uptake of the Internet in education, this tradition is—or at least it could be—rapidly changing. When the classroom is connected to the Internet, students can choose to include a variety of texts from all over the world in their literacy practices. When they get an assignment, the textbook is no longer their only research option; they have access to an endless array of online information sources. However, even though there is a vast amount of possible sites that students could access for schoolwork, international educational research has consistently found that students tend to favor a particular site: the free online encyclopedia, Wikipedia (Blikstad-Balas & Hvistendahl, 2013; Head & Eisenberg, 2010; Lim, 2009; Raine & Tancer, 2007).

When the topic of Wikipedia comes up, there is no shortage of opinions among teachers, students or researchers. While some are quite enthusiastic about Wikipedia's potential in education, others take a rather critical stance. Thus, the debate about Wikipedia in school has existed since the encyclopedia launched over a decade ago. This article is not a contribution to that debate—it is not an article about whether or not Wikipedia should be a part of literacy practices taking place in the school domain. Nor does it discuss the qualities and flaws of Wikipedia as such. Rather, it is an empirical investigation of *students' attitudes towards Wikipedia as a knowledge source in school*. Through a survey with both multiple choice and open-ended questions, the present study explores how and why students in upper secondary school use Wikipedia, and what the participating students consider to be the main advantages and disadvantages of using this digital encyclopedia for school assignments. Given that Wikipedia is increasingly becoming a part of everyday life at school, it is important to understand how students themselves feel about their Wikipedia-based literacy practices. As demonstrated in the upcoming theoretical framework, attitudes are a crucial part of socially-constructed literacy practices—and therefore worth investigating further.

The empirical data in the present study come from the Norwegian context. It is legitimate to question whether what goes on in Norwegian schools should interest anyone outside of the country. However, this article argues that Norway makes an interesting case for a broader international audience because it has incorporated digital skills into the curriculum as a mandatory part of education (Erstad, 2006). In addition, Norway is in the lead with regard to Internet access among OECD countries (Kjærnsli, 2007), and Norwegian students are rather accustomed to having Internet access both at home and at school (Egeberg et al., 2012; Hatlevik, Ottestad, Skaug, Kløvstad, & Berge, 2009). In many ways, the situation in Norwegian upper secondary classrooms is one that many other countries strive towards: a classroom where an increasing number of students have their own laptops and where the Internet is always accessible (Blikstad-Balas, 2012; Blikstad-Balas, 2013). The present study thus contributes to the field of knowledge with insight into how students who have virtually limitless access to information choose to approach their school assignments. The article begins with a theoretical section before reviewing relevant contemporary research about Wikipedia's growing role in school. The methods section presents the study's design. After the analysis, a discussion of the findings and their implications follows.

### 1.1 Theoretical framework – literacy practices and events

The key theoretical premise in the present study is the social nature of literacy, as defined by the scholars associated with New Literacy Studies (NLS).<sup>1</sup> The notion that literacy is essentially social has been popular in the educational discourse for the last three decades (Blikstad-Balas, 2013), and therefore, should not be novel to the readership of this journal. The main idea is that rather than a set of skills to be learned, literacy is something people *do* (Barton & Lee, 2014; Gee, 2015). The social practice model of literacy thus relies on the recognition that literacy is constructed in everyday contexts<sup>2</sup>. As a core principle, NLS holds that different ways of reading and writing are embedded in social practices at all times; they are always situated in—and cannot be segregated from— social, cultural, historical and political relationships (Barton, 2007; Barton & Hamilton, 1998; Gee, 2001; Larson & Marsh, 2005; Street, 1995). As a consequence, researchers exploring

---

<sup>1</sup> For a discussion of the terms (*New*) *Literacy Studies* and *New Literacies*, see Gillen and Merchant (2013).

<sup>2</sup> Gee (2015), convincingly argues that historically, many people grounded in NLS were actively hostile to psychology and a psychological approach to language and literacy. I would like to stress that while my own research focuses on the social aspects of literacy, I also acknowledge the cognitive aspects of reading and writing.

literacy as a social practice, must not consider assessments that reduce literacy to individual skills, but rather *how* different texts play roles in the events and practices associated with literacy; they must always consider the contexts framing these *events* and *practices*.

These two terms, *events* and *practices*, are central concepts to the discussion. The notion of literacy *events* emphasizes both the social and the situated nature of literacy. It parallels ideas in sociolinguistics, such as Dell Hymes' speech events, mentioned in Barton (2007, p. 36). It also aligns with Bakhtin's argument that analysis of spoken language should depart not from the formal linguistic properties of isolated texts, but from the social event of verbal interaction (Lemke, 1995). In order to understand literacy, the events where reading and writing are used in daily life must be examined. In NLS, practices, events and texts constitute the conceptual framework used to explore literacy across various contexts because the social practices of literacy are "observable in events which are mediated by written text" (Barton & Hamilton, 2000, p. 9). A literacy event is often defined as any occasion where the written word plays a role. In the present study, students were asked about a variety of literacy events, all associated with the online encyclopedia Wikipedia.

To contain the overall social practices of which literacy events are part, it is necessary to engage the concept of literacy *practice*, a "key concept that underlies literacy studies and makes language and literacy studies what it is" (Barton & Lee, 2013, p. 25). There are many social practices in general, and literacy practices may be considered a specific type of social practice. Thus, what people "do" with literacy constitutes literacy practices (Barton, 2007). Further, one can view literacy practices as general ways of using literacy that are transferred from one given situation to another similar situation. Literacy practices include social and cultural attitudes, notions of literacy and the way people use literacy.

Unlike literacy events, literacy practices are not observable units of behavior, as practices "also involve values, attitudes, feelings and social relationships" (Barton & Hamilton, 2000, p. 7). Literacy practices often include social regulation of texts in terms of who has access to given texts and who can produce them (Barton & Hamilton, 1998). Texts, such as Wikipedia entries or textbooks, gain value depending on the author; the potential to generate texts and maintain hegemony is not evenly distributed. Thus, the notion of literacy practices "offers a powerful way of conceptualizing the link between the activities of reading and writing and the social structures in which they are embedded and which they help shape" (Barton & Hamilton, 2000, p. 7).

The repertoire of literacy practices students engage in is always shaped by their school contexts and what their schooling values in terms of literacy. Schools tend to support *dominant* literacy practices. Such institutionalized and standardized literacy practices are often learned formally and are institutionalized and standardized (Barton, 2007; Street & Street, 1991). In addition to the dominant literacies often associated with school literacy, there are personal and informal literacies that are not imposed, but self-selected and voluntary. Often less visible with limited influence, such literacies are referred to as *vernacular* literacies (Barton, 2007). This is not a strict dichotomy, and the distinction between dominant and vernacular literacies is not about categorizing polar opposites and mutually exclusive kinds of literacy. Rather, the distinction illustrates the difference between imposed and self-generated literacies (Barton, 1991, Blikstad-Balas, 2013) and addresses how there is indeed a difference between the literacies that are determined and regulated by others—for example schools—and the literacies that result from individual choice. While some literacy practices are self-selected, others are framed by the demands of social institutions. As the present study will discuss, both types of literacies are prevalent in the school context, where it is increasingly common for traditional textbooks to co-exist with Wikipedia.

## 1.2 What do we know about Wikipedia in school?

Wikipedia is an online encyclopedia that was launched in 2001; thus, it is a relatively new knowledge source. It is a popular site, constantly among the most frequently visited sites on the Internet (Alexa, 2015). When it comes to the cluster of sites that concentrate on educational and reference material, Wikipedia draws nearly six times more traffic than the second most visited site (Raine & Tancer, 2007), and its popularity continues to increase (Zickuhr & Raine, 2011). Although Wikipedia is popular and well-used, the site is quite controversial in educational discourse. Eijkman (2010) claims that the controversy revolves not only around the content itself, but also around how students (mis)use the information from Wikipedia. Meanwhile, the organizational model of Wikipedia challenges established practices of knowledge production. Thus, Wikipedia's popularity among students (Blikstad-Balas & Hvistendahl, 2013; Lim, 2009; Raine & Tancer, 2007) contradicts the site's reputation in academia to a certain degree. As mentioned, this article will not provide an assessment of Wikipedia's accuracy as a knowledge source. Therefore, the following review focuses not on studies assessing Wikipedia or studies debating for or against Wikipedia's role in education, but on empirical studies that contribute to our understanding of how Wikipedia is used by students on a variety of school assignments.

Wikipedia is popular among students across countries and grades. A study about how and why college students in the US use the encyclopedia (Lim, 2009) found that one-third of the students reported using Wikipedia for academic purposes. Similarly, Head and Eisenberg's (2010) study, also from the US, found that the majority of college students in their sample reported using Wikipedia in academic settings. Whenever a student (or anyone else, for that matter) searches for relevant information on the web, the probability of visiting Wikipedia is high; search engines, such as Google, contribute to Wikipedia's popularity by systematically locating Wikipedia articles in top positions.

In stark contrast to students' traditional textbooks, Wikipedia is not written with specific subjects and specific grades in mind. Regardless of actual accuracy of content, the contents' quality and appropriateness is not assessed by a teacher or a professional textbook editor, rather it is assessed and edited by Wikipedia's users. This lack of professional editing can be challenging for students, who are used to reading quality-controlled material (Kiili et al., 2008) that has been considered to fit their need for information in various school settings. As pointed out by Metzger (2007), web users do not meticulously evaluate the content they are reading. Fallis' (2008) research suggested that people in general prefer easily-available sources, and they tend to make as little effort as possible when verifying them. In Rieh and Hilligoss' (2007) study, the sampled college students reported that they sometimes were willing to compromise credibility for speed and convenience. Similarly, the college students who participated in Lim's (2009) study expressed that when using Wikipedia, they were not expecting to find the best possible information available; rather, they were expecting to find *reasonably good* information. Thus, the relationship between expected quality and use is not necessarily even. A survey from Norway aiming to assess how digital technology is used in schools (Egeberg et al., 2012) actually found that the source the students reported trusting the most (a webpage accompaniment to the textbook) was the least used. Meanwhile, Wikipedia, which was the source the students reported trusting the least, was in fact the most used. Similarly, a Finnish study, conducted by Kiili and colleagues (2008), reported that most

upper secondary school students seldom evaluated the credibility of their sources, and they relied heavily on information from Wikipedia.

Finally, a study by Kubiszewski and colleagues (2011) found that attitudes matter when people are deciding which sites they trust. In their study, the exact same information would be perceived as more trustworthy when it was designated as appearing in *Encyclopedia Britannica* and significantly less credible if designated as appearing in *Wikipedia* or *Encyclopedia of Earth* (Kubiszewski et al., 2011).

In line with the reviewed research, how students feel about Wikipedia—and other informational sources—matters. The accessibility of information is also important. It is a clear tendency in the cited literature that students tend to use Wikipedia despite being aware of the encyclopedia's anonymous authorship. Ultimately, they tend to assume a rather pragmatic position: if Wikipedia provides them with information that is “good enough” for a given academic purpose, they will happily use it.

## **2. Methods**

### **2.1 Research aims**

This study encompassed a twofold aim: (a) to obtain an overview of students' use of Wikipedia for school purposes and (b) to explore students' attitudes towards Wikipedia as a source of information for school work. As will be elaborated on in the next sub-section, a survey was used to meet these aims, combining multiple choice and open-ended questions.

### **2.2 Survey**

**2.3** The survey (Appendix A) was conducted online with a total of 35 questions. Apart from the initial question, where the respondents were asked to identify themselves as male or female, all questions directly concerned the respondents' use of and attitudes toward Wikipedia. The first 33 questions were multiple-choice, employing different kinds of Likert scales (Crocker & Algina, 1986, p. 79), while the two final questions were open-ended, encouraging the respondents to write, in their own words, what they considered to be the advantages and the disadvantages of using Wikipedia in a school setting. The Likert scale questions referred to how often students did different activities or how much they agreed or disagreed with different claims. These scales were similar to those used on PISA tests, for example. In the questions where the students were to express a degree of agreement, there was no neutral alternative; they had to choose between “strongly agree,” “agree,” “disagree” and “strongly disagree.” This feature ensured that all respondents actually made a choice rather than selecting a middle value (Kulas, Stackowsky & Hayes, 2008). The open-ended questions were included because they have the potential to provide unexpected information and because giving the participants an opportunity to use their own words tends to provide a more detailed portrait of their attitudes (Fowler, 2009). The questionnaire was piloted by students who were encouraged to be critical and help identify potential confusing or even misleading language, as well as questions with potential multiple meanings. The survey itself and the students' responses were all written

in Norwegian, thus the references made in this article are to my translations of the original text. **Sample and data collection process**

The survey was conducted in 2012, based on a sample of 168 students from eight different schools in two Norwegian counties. The chosen schools were selected from different areas, and the variation in grades and socioeconomic background should reflect the variations in the overall population. All the sampled students were attending their final year of upper secondary school at the time of the survey (they were 18 or 19 years old). Local regulations state that all students must have access to a computer provided by the school. Students were asked to fill in the questionnaire during class. Their teacher provided a link that gave each student access to the survey, allowing a response rate close to 100%. This eliminated the issue of only students particularly interested in Wikipedia participating, which is a common problem when the recruitment for a survey is based on voluntary random sampling. The survey was completely anonymous, as the teachers could not see the results from their classes, and the researcher did not know the identity of any of the participants in any of the eight classrooms.

## **2.4 Data analysis**

The survey's multiple-choice questions provided quantitative descriptive data, such as the percentage of the sample that agreed strongly with any given claim. The open-ended questions required qualitative interpretation. The two open-ended questions asked students what they considered to be (a) the main advantages of using Wikipedia in a school setting, and (b) the main disadvantages of using Wikipedia in a school setting. The answers have been analyzed thematically, which means that I have tried to identify recurring themes in the students' written answers. By comparing these systematically, I have attempted to get an overview of what the students consider important, what they seem to agree on, as well as identifying topics the students disagree about. Since the present study aimed to provide insight into students' current perceptions of Wikipedia, the analysis and discussion will center on high volume responses from the material.

## **2.5 Limitations**

Even though the present study has several interesting findings about how students claim to use Wikipedia and what they consider to be advantages and disadvantages in a school setting, there are also several questions raised by the data that I do not have an explanation for. A good example of this is that as we will see next, the students claimed to use Wikipedia significantly less when preparing for tests than for other purposes, such as homework<sup>3</sup>. But the survey does not provide any clear indication as to why this is the case.

# **3. Findings**

## **3.1 Wikipedia is used for a variety of purposes**

---

<sup>3</sup> It is not possible to infer from the data why the students use Wikipedia less when preparing for a test, but other studies (e.g. Blikstad-Balas & Hvistendahl, 2013) have suggested a discrepancy between formal and informal tasks, and found that students consider Wikipedia well suited for the latter.

Consistent with the findings of other studies, the students expressed positive attitudes toward including Wikipedia in their school work. All of the students ( $n=168$ ) confirmed that they had visited Wikipedia, and all students but one had also accessed the English version of the encyclopedia, which is not surprising given that English Wikipedia is the most extensive one. In addition, other versions that students reported using were Spanish Wikipedia (39%), Swedish Wikipedia (30%), Danish Wikipedia (28%), French Wikipedia (17%), German Wikipedia (17%), and Other Languages (9%).

The question “How often have you visited Wikipedia this week (last 7 days)?” obtained the following distribution in responses:

Have not been there this week	12%
1-2 times this week	34%
3-6 times this week	33%
1 time every day this week	8%
Several times each day this week	13%

**Table 1: How often have you visited Wikipedia this week?**

The variance in how often the students accessed Wikipedia did not reflect systematic differences across the schools, as all eight participant schools had students spread across the response categories. Thus, the variation indicates individual differences in use within the schools, rather than different school cultures concerning Wikipedia. The respondents were also asked how often they used Wikipedia for particular purposes. Most of the students reported that they used Wikipedia several times a week or several times a month to find information for school tasks from the textbook, to find information to complete assignments given by their teachers, to do group-based projects, and to prepare for oral presentations. The only situation in which most students (53%) reported never or almost never using Wikipedia was when preparing for a test. Unsurprisingly, the present study also found that most of the students (85%) often or always first did a Google search which then brought them to Wikipedia. This finding resonates with several studies mentioned in the review section and illustrates the clear relationship between students’ use of Google and Wikipedia.

A much-discussed feature of Wikipedia is the anonymous authorship. Anyone can add content to the encyclopedia, and because students use Wikipedia extensively, the present study wanted to explore whether students tend to take this opportunity themselves. In this sample, the question “Have you ever added text to Wikipedia?” obtained a “Yes” from 11% of the students, and a “No” from the remaining 89%. Just as anyone can add or edit content on Wikipedia, anyone can also report errors or misleading content. The question “Have you ever reported errors or incomplete content to Wikipedia?” obtained a positive response from 9% and was declined by the remaining 91%. Both of these questions affirm the impression that students, in general, are consumers of Wikipedia rather than producers.

### **3.2 Positive attitudes toward Wikipedia in a school setting**

As we will see, several of the questions in the survey assessed how students perceive Wikipedia as well as their attitudes toward the encyclopedia. The students were asked to rate their agreement

with this statement: “I like using Wikipedia for school use.” The responses can be categorized as follows:

Strongly agree	26%
Agree	57%
Disagree	13%
Strongly disagree	4%

Table 2: I like using Wikipedia for school work

Another claim the students were asked to rate in terms of agreement was “I find it easy to find information on Wikipedia.” The responses to this claim were as follows:

Strongly agree	73%
Agree	26%
Disagree	0%
Strongly disagree	0%

Table 3: I find it easy to find information on Wikipedia

As we can see, an overwhelming majority of the students (99%) reported to find Wikipedia is easy to use. In the open ended-question asking the students to explain what they consider to be the main advantages of using Wikipedia for school work, easy access to information was one of the most mentioned advantages. There were several typical student responses indicating this feature: “It is easy,” “It is easy to use and fast,” “It is quick,” “You find the information you need.” A clear pattern in the students’ elaborations is that they are very positive towards the encyclopedia. Several students suggested that Wikipedia is indeed an essential part of their everyday life at school. For instance, one student referred to Wikipedia as “the world’s biggest and best information source,” while another student wrote that “Wikipedia answers almost anything.” One student even described Wikipedia as “an answer to your question, just a click away!” In addition to these non-specific positive utterances, some students provided more detailed information about what they considered to be Wikipedia’s main strengths. A recurring theme in these responses was that Wikipedia is good for all kinds of factual information, such as events that happened in a specific year, biographical information or information about historical events. Also, several students claimed that Wikipedia provides “an overview” and “the big picture.”

### 3.3 Awareness about credibility issues

Whether or not students trust Wikipedia is another recurring theme in the survey. One claim the students were presented with was the following: “Information on Wikipedia might be wrong.” To this claim, the students responded the following:

Strongly agree	52%
Agree	44%
Disagree	3%
Strongly disagree	1%



Table 4: Information on Wikipedia might be wrong

The students were also asked if Wikipedia is “as trustworthy as their textbooks.” Only 10% of the students agreed or strongly agreed with this statement, while the remaining, 90%, disagreed or strongly disagreed.

These responses indicate that the students are aware of Wikipedia’s somewhat problematic reputation as a knowledge source. The credibility issues concerning Wikipedia’s content were also the main disadvantage identified by the students in the open-ended questions. Here, virtually all the students explained in their own words how Wikipedia “is not to be trusted,” “is not a trustworthy source,” and how “you cannot rely on what you find there.” This lack of trust results from the fact that anyone can add content or edit existing content.

Although there was strong consensus among the students about Wikipedia’s lack of credibility, there were some interesting nuances in their elaborations. While a majority of the students described Wikipedia’s lack of trustworthiness as its main disadvantage, some students considered Wikipedia’s bad reputation as its main disadvantage. In other words, some students believed that potential misinformation was a problem, while others seemed more preoccupied with the association between Wikipedia and misinformation. Several students actually considered their teachers’ lack of approval to be the biggest disadvantage of Wikipedia in a school setting. They mentioned that teachers might react in a negative way if they saw Wikipedia on a reference list. It is worth noting that a few students wrote that they could not identify any disadvantages whatsoever associated with using Wikipedia for school purposes. There were also fewer student responses on the open-ended question about disadvantages than on the equivalent question about advantages. When it comes to credibility issues, the present study found that the students used Wikipedia despite their awareness about its anonymous authorship and somewhat bad reputation. This finding echoes previous studies on this matter.

Another interesting finding relates to whether students believe their teacher in Norwegian language arts would approve of their use of Wikipedia as a source in school assignments. The claim “My Norwegian language arts teacher likes it when I use Wikipedia for school assignments” obtained the following responses:

Strongly agree	2%
Agree	25%
Disagree	51%
Strongly disagree	22%

Table 5 - "My Norwegian Language Arts teacher likes it when I use Wikipedia for school work"

This finding is interesting because students in the same class, who have the same teacher, answered the question differently. Thus, these results do not seem to reflect different Wikipedia practices in different classrooms, rather they illustrate that there might be uncertainties about whether each of the teachers actually would like to see Wikipedia used in a school assignment or not.

### 3.4 Wikipedia compared to the textbook

Although the students seemed to agree that the textbook was more credible than Wikipedia, all the students who chose to compare Wikipedia and the textbook in the open-ended questions did so in a way that favored Wikipedia. While some students argued that text from Wikipedia is easier to understand than the textbook, others claimed the opposite. Those who labeled Wikipedia as easier provided explanations, such as “Wikipedia is easier to understand than the long texts in the textbooks,” “Wikipedia is significantly more to the point than the textbooks,” “Wikipedia gives a clearer answer to what something is, while the book and other texts use more space to provide a clear answer,” and “On Wikipedia you get a definition of what you have searched for. The textbooks repeat themselves and you have to read the whole text in order to understand.” On the other hand, students who argued that content on Wikipedia was more complex than the texts in their textbooks described Wikipedia’s content as “deeper” and “more detailed,” pointing out that in contrast with the textbook, Wikipedia did not try to “simplify things.”

This divergence in students’ answers can be understood as a result of the flexibility of using Wikipedia as a knowledge source. If quick information about a specific issue is needed, it can be looked up quickly and easily without having to read a great deal about other related topics. However, if a more detailed account of the same issue is needed, it is also very easy to access. Thus, it seems that students who prefer quick and easy answers and students who prefer longer, more detailed accounts, both regard Wikipedia as a better source of information than their textbooks. This finding is not surprising. If a student has an assignment about the Cold War, for instance, a quick Wikipedia search will provide basic information and definitions for the Cold War (Wikipedia, 2014a). However, if the same student desires, he or she also can read extensive information about everything from the “End of World War II” to “Crisis and Escalation” or “Aftermath,” to mention but a few of the possibilities. If the student chooses to read about “Aftermath,” the sub-section “In Popular Culture” will lead to an overview of different films, books and TV-series about the Cold War. A click on “From Russia with Love” will then take the student to a new page with a new variety of options (Wikipedia, 2014b). The somewhat obvious point is that if a student chooses to look for explanations about the Cold War in the assigned history textbook, this flexibility is not an option. As one of the students put it in the open-ended question regarding the use of Wikipedia instead of the textbook, “If you need to, you can read elaborations about a given topic, or you can just read the summary if that is what you need.”

To sum up, the present study suggests that students include Wikipedia in their literacy practices for a variety of school-related purposes. Further, it provides evidence that students are quite fond of Wikipedia, and that they perceive the main advantages to be that it is easy to use and fast, and the needed information is accessible. The main disadvantages identified by the students relate to the lack of credibility associated with Wikipedia’s anonymous authorship. While some students considered potentially incorrect information to be the main problem, others expressed that the main disadvantage was not the information on Wikipedia itself, but the bad reputation associated with it as well as the potential teacher disapproval. The students who willingly compared Wikipedia to their textbooks in the open-ended questions all preferred Wikipedia. While some students said they enjoyed the ability to find short answers to their questions fast, others said they appreciated the possibility to go deeper into topics and read more extensive explanations.

## 4. Discussion

Initially, this article set out to obtain an overview of students' use of Wikipedia for school purposes and to explore students' attitudes towards Wikipedia as a source of information for school work. This article attempted to refrain from a normative discussion about whether Wikipedia belongs in education or not. Discussing whether Wikipedia is adequate or not in educational practices seems rather pointless. The textual basis of a literacy event is never good or bad for educational purposes; we must consider the actual practices that texts like Wikipedia generate, enable and maintain. Needless to say, Wikipedia can be used in a number of ways and for a number of purposes. The present study suggests that for many students, obtaining information from Wikipedia is a central literacy practice in the school domain. Thus, the question is not about saying "yes" or "no" to Wikipedia, but a question of how schools should address the fact that students' literacy practices rely heavily on this one particular site.

As mentioned in the introduction, connecting the classroom to the Internet makes a variety of new knowledge sources available. This means that texts labeled as dominant, such as the traditional textbook, can be challenged by texts chosen by the students. In the present study, the tension between dominant and vernacular literacy practices becomes evident when the students describe how their preferred choice, Wikipedia, is often criticized by their teachers. For some students, Wikipedia's main drawback is that teachers might not approve of it. These students are not afraid of being stuck with incorrect information as their experiences seem to indicate that the site provides the information they need. Rather, they are afraid of being criticized for making a poor choice in knowledge sources. Thus, Wikipedia's credibility problems among teachers become the only de facto problem for many students. This discrepancy between student and teacher attitudes towards Wikipedia suggests that there is a need to actually discuss Wikipedia in the classroom to a larger extent. This is the first main point of this discussion: Wikipedia seems to be a part of school literacy practices regardless of whether teachers approve or not, and regardless of whether teachers talk about it or not. Students know that if they wish to find the most trustworthy site on the entire Internet, Wikipedia is not a way to get what they want. However, in most cases, Wikipedia will make sure they get what they need.

This raises the question of whether it is problematic that students and teachers do not seem to share literacy practices concerning Wikipedia. My claim is that it can be. As Jewitt, Moss and Cardini (2007) have argued, effective use of any given technology presupposes that this technology must be embedded in curriculum knowledge, pedagogy and learning. We know that when digital media are integrated in the official literacy curricula, significant learning and motivation gains have been documented (Mills, 2010). There are several findings in the present study that point to an unfortunate lack of integration of the students' Wikipedia-based vernacular literacy practices and the more traditionally dominant literacy practices of school. This brings us to another point worth stressing: It appears that the students in this study seldom discuss Wikipedia with their teachers. My claim that a lack of communication about their literacy practices exists, is based on the information in the open ended questions of the survey. Several students expressed a lack of understanding regarding *why* their teachers seem to disapprove of Wikipedia. However, while some students wrote that their teachers might not approve of the encyclopedia, no student claimed that their teachers had explicitly said they could not use it as a source, that school rules discouraged it or any other kind of explicit attempts to diminish their

use of Wikipedia. Similarly, in the question about whether their Norwegian Language Arts teacher would approve if they used Wikipedia for school assignments, students in the same class answered quite differently – at all the schools. Another issue worth discussing relates to the fact that although the students have a very positive attitude towards Wikipedia, they do not appear to have any alternative that compares to this encyclopedia. Developing students' critical literacies will remain an unreachable goal if they continue to choose the same source over and over again. There is general consensus that schools should teach students how to deal with multiple sources of text, and in many countries, there is an explicit focus on including Internet texts in education. The diversity of Internet texts may contribute to a broadening of school literacy, but not if the "Internet" is juxtaposed with "Wikipedia." The extensive use of search engines, such as Google, enables a situation where students who are not looking for information on Wikipedia will end up there anyway. This scenario resembles the much criticized traditional literacy practices associated with textbooks, where the textbook used to be the only actual "choice" if a student needed to find information. One might even ask if Wikipedia has in fact taken over the hegemonic position of the textbook.

As I argued in the introduction, it is well known that memorizing and reproducing texts have been an essential part of educational practices for a long time (Alvermann & Moore, 1991; Säljö, 2010; Wade & Moje, 2000). Thus, it seems that the students' new literacy events, based on Wikipedia, fit perfectly with some of the more traditional literacy practices associated with the school domain. This is why it is important to distinguish between discussing Wikipedia per se, as part of various literacy events in separate assignments, and school literacy in broader terms and practices. Wikipedia might be rather new, but the need for easily accessible and quick information that can be reproduced is not.

Scardamalia and Bereiter (2006) distinguish between knowledge *about* and knowledge *of*. This distinction can be quite useful when discussing how and why Wikipedia is becoming such an important part of students' literacy practices (Blikstad-Balas & Hvistendahl, 2013). Scardamalia and Bereiter (2006) claim that knowledge *about* dominates traditional educational practice and is predominant in textbooks, curriculum guidelines and subject matter tests. Knowledge *of*, on the other hand, suffers from massive neglect. Lajoie and Azevedo (2006) illustrate how Internet search engines clearly support the search for declarative or factual knowledge—knowledge *about*. If students are given an assignment asking for knowledge about something, the unsurprising result will often be a fact-oriented reproduction of some kind due to the use of search engines to find such knowledge. In their review of how students use web-based learning resources, Furberg and Rasmussen (2012) conclude that students often end up copying or reproducing fact-oriented texts they find in their textbooks or online. They also call attention to the finding that students describe their own strategies as "transporting and transforming" facts (Alexandersson & Limberg, 2004) and say they are "sampling" while cutting and pasting potential material in a "scrap book" (Lund & Rasmussen, 2008).

I am not in any way implying that finding information on Wikipedia and using it for school purposes is a useless literacy practice. What might be rather problematic is that facts – knowledge *about* –all kinds of subjects, has never been easier to find, whether on the Internet in general, or on Wikipedia. Gee and Hayes (2011, p. 67) describe information and facts as "cheap", precisely because it is so easy to obtain. But, as they explain, "understanding the methods for producing

such contents and reasons for trusting it (or not) is, however, not cheap or easy". A similar point is raised by Buckingham (2006), who emphasizes that children tend to see content on the web as originating not from people, organizations or businesses with specific objectives or inclinations, but rather as a universal source, information that simply "exist[s] out there". The findings of the present study point to a lack of shared literacy practices regarding what Wikipedia is and how it is used. If we acknowledge that schools do have a responsibility to provide students with literacy practices that develop students' ability to read and assess texts critically, the lack of shared discourses and discussions about Wikipedia represents a missed opportunity when it comes to developing critical literacy.

It might well be the case that the teachers have good reasons for wanting their students to use other texts or sources as the basis for their literacy events during assignments. What is unfortunate, however, is if the ideal and intended school literacies remain implicit, and also if the students' vernacular literacies (such as Wikipedia, if it is never discussed or made part of an educational discourse) are rendered implicit, as appears to be the case in this study. Keeping these (at times conflicting) practices implicit might stand in the way of a shared literacy discourse between teachers and students, and also between students. We know that schools have their own academic varieties of literacy practices (Barton, 2007; Gee, 2015). It is reasonable to assume that several aspects of dominant school practices exist that students would benefit from participating in, both in and out of school, and not least later in life, regardless of academic ambitions. Thus, the lack of explicitness found in this study makes the dominant literacy practices less visible, less easy to identify, and by extension also less open for participation by all students.

### **Concluding remarks**

The previously mentioned "transmission model," where students were expected to reproduce knowledge from a textbook might seem like a historical curiosity in a classroom where students can choose information from whatever source they want. But it is not. We must ask ourselves: Why is it that an encyclopedia has become the most popular knowledge source in school? This study, along with several others, suggests that students like Wikipedia and that they more often than not find what they need. Students use Wikipedia because it works for them. Thus, in a number of ways, using Wikipedia has become a common literacy practice in school, not simply because students enjoy using Wikipedia, but because using Wikipedia fits so well with the other literacy practices in the school domain. If "Wikipedia gives you everything you need," as several of the students in this material claim, then that says a great deal not only about Wikipedia, but also about the demands these students face. I am tempted to suggest that the "transmission model" is very much at play here: If students have such a need for what they themselves describe as quick, accessible information across subjects, it must be because their school-related tasks actually reward this kind of information.

### **References**

- Alexa Traffic Rank. (2015). Alexa Top 500 Global Sites, retrieved from: <http://www.alexa.com/topsites>
- Alexandersson, M., & Limberg, L. (2004). *Textflytt och sökslump: informationsökning via skolbibliotek*. Stockholm, Myndigheten för skolutveckling. [Searching information through the school library]

- Alvermann, D. E., & Moore, D. W. (1991). Secondary school reading. In R. Barr, M. L. Kamil, P. B. Mosenthal, & D. P. Pearson (Eds.), *Handbook of reading research*, vol. 2 (pp. 951–983). New York: Longman.
- Barton, D. (1991). The social nature of writing. In R. Ivanic & D. Barton, *Writing in the community* (pp. 1-13). London: Sage Publications.
- Barton, D. (2007). *Literacy: An introduction to the ecology of written language*. Malden, MA: Blackwell Publishers.
- Barton, D., & Hamilton, M. (1998). *Local literacies: Reading and writing in one community*. London: Routledge.
- Barton, D., & Hamilton, M. (2000). Literacy practices. In D. Barton, M. Hamilton & R., Ivanic. *Situated literacies: Reading and writing in context* (pp. 7-15). London: Routledge
- Barton, D., & Lee, C. (2013). *Language online: Investigating digital texts and practices*. London: Routledge.
- Blikstad-Balas, M. (2012) Digital literacy in upper secondary school - what do students use their laptops for during teacher instruction?. *Nordic Journal of Digital Literacy*. (2), s 81- 96
- Blikstad-Balas, M. (2013) *Redefining School Literacy. Prominent literacy practices across subjects in upper secondary school*. Thesis for the degree of PhD. Oslo: University of Oslo.
- Blikstad-Balas, M. & Hvistendahl, R. E (2013). Students' digital strategies and shortcuts: searching for answers on Wikipedia as a core literacy practice in upper secondary school. *Nordic Journal of Digital Literacy*. (1/2), s 32- 48
- Blikstad-Balas, M. (2014). Lærebokas hegemoni - et avsluttet kapittel?, I: R. E. Hvistendahl & A. Roe (red.), *Alle tiders norske didaktiker. Festskrift til Froydis Hertzberg på 70-årsdagen*. Novus Forlag. Kapittel. s 325 - 347
- Buckingham, D. (2006). “Defining digital literacy – What do young people need to know about digital media?. *Nordic Journal of Digital Literacy*. 1(4), 263-277.
- Crocker, L., & Algina, J. (1986). *Introduction to classical and modern test theory*. Fort Worth, TX: Holt, Rinehart, & Winston.
- Cuban, L. (1983). How did teachers teach, 1890–1980. *Theory into Practice*, 22(3), 159–165.
- Egeberg, G., Gudmundsdóttir, G. B., Hatlevik, O. E., Ottestad, G., Skaug, J. H. & Tømte, K. (2012). *Monitor 2011. Skolens digitale tilstand*. Senter for IKT i utdanningen. Oslo: Norway.[The digital state of affairs in Norway, report]
- Eijkman, H. (2010). Academics and Wikipedia: Reframing Web 2.0+ as a disruptor of traditional academic power-knowledge arrangements. *Campus-Wide Information Systems*, 27(3), 173–185.
- Erstad, O. (2006). A new direction? *Education and Information Technologies*, 11(3-4), 415–429.
- Fallis, D. (2008). Toward an epistemology of Wikipedia. *Journal of the American Society for Information Science and Technology*, 59(10), 1662–1674.
- Fowler, F. J. (2009). *Survey research methods*. Los Angeles: Sage.
- Furberg, A., & Rasmussen, I. (2012). Faktaorientering og forståelsesorientering i elevers bruk av nettbaserte læringsomgivelser. In T. E. Hauge & A. Lund. *Små skritt eller store sprang? Om digitale*

- tilstander i skolen*. [Fact orientation and understanding orientation in students' use of web-based learning arenas] (pp. 23–57). Oslo, Norway: Cappelen Damm Akademisk.
- Gee, J.P. (2001). Reading, language abilities, and semiotic resources: Beyond limited perspectives on reading. In J. Larson, *Literacy as snake oil: Beyond the quick fix* (pp. 7-26). New York: Peter Lang.
- Gee, J. P. (2015). *Literacy and Education*. London: Routledge.
- Gee, J. P., & Hayes, E. R. (2011). *Language and learning in the digital age*. London. Routledge.
- Gillen, J., & Merchant, G. (2013). Contact calls: Twitter as a dialogic social and linguistic practice. *Language Sciences*, 35, 47-58
- Goodlad, J. I. (1984). *A place called school. Prospects for the future*. New York: McGraw-Hill
- Hatlevik, O. E., Ottestad, G., Skaug, J. H., Kløvstad, V., & Berge, O. (2009). *ITU MONITOR 2009: skolens digitale tilstand*. Senter for IKT i utdanningen. Oslo. [The digital state of affairs in Norway, report].
- Head, A., & Eisenberg, M. (2010). How today's college students use Wikipedia for course-related research. *First Monday*, 15(3). Available at: <<http://firstmonday.org/ojs/index.php/fm/article/view/2830/2476>>. Date accessed: 15 Sep. 2014. doi:10.5210/fm.v15i3.2830.
- Jewitt, C., Moss, G., & Cardini, A. (2007). Pace, interactivity and multimodality in teachers' design of texts for interactive whiteboards in the secondary school classroom. *Learning, Media and Technology*, 32(3), 303-317.
- Kiili, C., Laurinen, L., & Marttunen, M. (2008). Students evaluating internet sources: From versatile evaluators to uncritical readers. *Journal of Educational Computing Research*, 39(1), 75–95.
- Kjærnsli, M. (2007). Tid for tunge løft: Norske elevers kompetanse i naturfag, lesing og matematikk i PISA 2006. Oslo: Universitetsforlaget [Time for heavy lifting: Norwegian student's competencies in science, reading and mathematics in PISA 2006]
- Kubiszewski, I., Noordewier, T., & Costanza, R. (2011). Perceived credibility of Internet encyclopedias. *Computers & Education*, 56(3), 659-667.
- Kulas, J.T., Stachowski, A.A, og Haynes, B.A. (2008). Middle response functioning in Likert-responses to personality items. *Journal of Business and Psychology*, 22, 251–259.
- Lajoie, S. P. & Azevedo, R. (2006). Teaching and learning in technology-rich environments. In P. H. Winne & P. A. Alexander, *Handbook of educational psychology* (pp. 803–821). Mahwah, NJ: Psychology Press
- Larson, J., & Marsh, J. (2005). *Making literacy real: Theories and practices for learning and teaching*. London: Sage Publications.
- Lemke, J.L. (1995). *Textual politics: Discourse and social dynamics*. London: Taylor & Francis.
- Lim, S. (2009). How and why do college students use Wikipedia? *Journal of the American Society for Information Science and Technology*, 60(11), 2189–2212.
- Lund, A., & Rasmussen, I. (2008). The right tool for the wrong task? Match and mismatch between first and second stimulus in double stimulation. *International Journal of Computer-supported Collaborative Learning*, 3(4), 387–412.

- Metzger, M. J. (2007). Making sense of credibility on the Web: Models for evaluating online information and recommendations for future research. *Journal of the American Society for Information Science and Technology*, 58(13), 2078–2091.
- Mills, K.A. (2010). A review of the “digital turn” in the new literacy studies. *Review of Educational Research*, 80(2), 246-271.
- Raine, L. & Tancer, B. (2007). *Wikipedia users*. Washington, DC: Pew Internet & American Life Project. Retrieved from <http://pewinternet.org/Reports/2007/Wikipedia-users.aspx>.
- Rieh, S. Y., & Hilligoss, B. (2007). College students’ credibility judgments in the information seeking process. In M. J. Metzger & A. J. Flanagin, *Digital media, youth, and credibility* (pp. 49–72). Cambridge, MA: MIT Press.
- Säljö, R. (2010). Digital tools and challenges to institutional traditions of learning: technologies, social memory and the performative nature of learning. *Journal of Computer Assisted Learning*, 26(1), 53-64.
- Scardamalia, M., & Bereiter, C. (2006). Knowledge building: Theory, pedagogy, and technology. In K. Sawyer, *Cambridge handbook of the learning sciences* (pp. 97-118). New York: Cambridge University Press.
- Street, B.V. (1995). *Social literacies: Critical approaches to literacy development, ethnography and education*. London: Longman
- Street, B.V., & Street, J. (1991). The schooling of literacy. In D. Barton and R. Ivanic, *Writing in the community* (pp. 143-166). London: Sage Publications.
- Wade, S. E., & Moje, E. B. (2000). The role of text in classroom learning. In M. L. Kamil, P. B. Mosenthal, D. B. Pearson, & R. Barr, *Handbook of Reading Research*, 3 (pp. 609–627). Mahwah, NJ: Erlbaum.
- Wikipedia. (2014a). The Cold War. Retrieved from: [http://en.wikipedia.org/wiki/Cold\\_War](http://en.wikipedia.org/wiki/Cold_War).
- Wikipedia. (2014b). From Russia with love (film). Retrieved from: [http://en.wikipedia.org/wiki/From\\_Russia\\_with\\_Love\\_\(film\)](http://en.wikipedia.org/wiki/From_Russia_with_Love_(film)).
- Zickuhr, K., & Raine, L. (2011). *Wikipedia, past and present*. Pew Research Center’s Internet & American Life Project. Retrieved from: [http://pewinternet.org/~media/Files/Reports/2011/PIP\\_Wikipedia](http://pewinternet.org/~media/Files/Reports/2011/PIP_Wikipedia)