# Social Networking Sites in Education – Governmental Recommendations and Actual Use

*Ingrid Helleve, Aslaug Grov Almås & Brita Bjørkelo*

**Ingrid Helleve**

Associate Professor, Faculty of Education, University of Bergen, Bergen, Norway
Ingrid.Helleve@iuh.uib.no

**Aslaug Grov Almås**

Associate Professor, Stord/Haugesund University College, Stord, Norway

**Brita Bjørkelo**

Associate Professor, Faculty of Education, University of Bergen, Bergen, Norway/Norwegian Police University College, Oslo, Norway

## Abstract

The aim of this paper is to explore to what extent and for what purposes pre-service teachers (Study 1, *n* = 474) and upper secondary pupils (Study 2, *n* = 324) use social networking sites (SNS), and how the Government's recommendations correspond to the two groups' understanding of their educational institutions' SNS guidelines. Results show that the majority in both groups want to communicate with peers, not with each other. Both report negative SNS experiences. Pre-service teachers do not use SNS for pedagogical purposes, pupils do. Governmental recommendations are discussed in relation to the findings regarding institutional guidelines.

**Keywords:** Social networking sites, SNS, preservice teachers, upper secondary pupils, teacher education, school, governmental, pedagogical use, learning

## Introduction

Norway is at the forefront of the OECD region in terms of Internet access (Frønes et al., 2011). In spite of great economic investments, results from tests like PISA and TIMMS show that Norway does not come out at the top of international educational competitions (Kjærnsli, 2007). So far, attention seems to have focused more on the computers themselves than on learning outcomes. From a Governmental perspective, the Norwegian education system aspired to be among the best in the world concerning development and use of Information and Communication Technologies (ICT) in teaching and learning (MER, 2003). Another political document: Whitepaper 44 makes strong arguments for social networking sites (SNS) to be utilised as a support for learning (MER, 2008- 2009). Schools' SNS usage relates to pupils' confidence in digital media, development of identity and social competence. Youths are highly engaged with SNS in everyday life, and the policy also recommends that these sites are well suited for pedagogical purposes. The Whitepaper claims that since more than 90 per cent of pupils in upper secondary schools use SNS, these sites may strengthen the relevance of education. Further, it is argued that SNS can contribute to young individuals' critical reflection, development of basic competencies, social capability, and build a bridge to young individuals' lives. The relationship between SNS, ethics and legislation is not addressed. Since Norwegian teachers have no national, ethical guidelines, experienced as well as pre-service teachers and schools are left to make their own personal decisions concerning ethics and SNS in education.

Confronted with Governmental expectations as referred to above, one of the most important decisions a teacher makes is no longer *if*, but rather *when, how,* and *why* ICT can and should be used in education. In the process of transforming curriculum into actual practice, studies have shown that teacher reflections include both conscious and unconscious ethical dilemmas guided and ruled by personal attitudes, values and feelings (Helleve, 2010). As teacher attitudes, values, and desires for change are decisive for how a curriculum is transformed into practice (Almås, 2009), teacher education is of great importance.

Teaching is a profession surrounded by ethical dilemmas (Carlgren & Marton, 2001). Still, teacher education seems to be more devoted to training in educational theory than in ethical reflection and use of technology. If political aims and purposes concerning SNS are to be realized, future teachers, pupils, and educational institutions must play central roles. In order to gain knowledge of how ethical teacher education should be practiced, it is important to provide knowledge about SNS usage among pre-service teachers and pupils. The study, which is limited to the Norwegian context, is part of a comparative study on ethics, social media, and teacher education in Norway and Australia. The aim of this study is to investigate and compare: (1) pre-service teachers', and upper secondary school pupils' experiences with SNS and Facebook (FB), and (2) how these experiences relate to school guidelines and national policy documents.

## Background

### Theoretical foundation

An often asked question is if the ethical challenges connected to digital media are new, or if they represent a continuum of what we already know as ethical dilemmas. Ess (2009) concludes that there are three fundamental differences between digital and analogue media, thus giving reasons why digital media ethics should be developed. First, digital media have the ability of fostering

convergence, which makes it possible to share common information. Second, the information is greased and consequently spreads easily; and third that the media have interactive abilities making it possible to give responses. Further, Ess argues that across global cultures privacy is regarded a value. In some cultures this may concern individual privacy, in other the collective privacy as in Asia. There is a limit however, for what people regard as their private zone. The possibilities for sharing thoughts and feelings may change individual conceptualisations of privacy. Privacy can thus take on another meaning when individuals communicate just as much and easily with familiar as well as unknown individuals. In turn, issues and conversations that were earlier hidden in secret written diaries and kept for intimate conversations with friends are now posted online. This can in turn lead to false representation, for example through cyber bullying. Ess (2009) distinguishes between three kinds of privacy; accessible, decisional, and informational. The first is the right to be left alone, the second is freedom from interference, and the third is the possibility to control personal information. Ess' conclusion is that people are more vulnerable to violations of privacy concerning digital media and that increased vulnerability requires increased responsibility. This would be an ethical responsibility that is distributed across networks. One of the most frequently applied SNS' (Kuss & Griffiths, 2011), where the ethical responsibility and privacy is at risk, is FB.

FB is associated with friendship and privacy (Carter et al., 2008). The name FB originally referred to the printed face-books containing names and pictures that were supposed to inform staff and new students about life on campus. The irony of the name is that it eludes face-to-face closeness even at a distance. According to van Manen (2010), FB allows potential access to what used to be regarded as private. Referring to the Momus' window in Greek mythology, he shows how young individuals' experiences of privacy, secrets, and intimacy may be altered through what he calls the Momus effect. As the god of mockery and sarcasm he criticised those who created the first woman for not having placed a window into her breast making it possible to investigate her secret thoughts and feelings. van Manen argues that SNS have made Momus' wishes a reality. Ess (2009) makes a distinction between ethical absolutism, relativism, and pluralism. When people make their judgements based on ethical absolutism they understand an ethical dilemma as either right or wrong. Relativists are tolerant and regard different beliefs as legitimate, while ethical pluralism is in between the two. The question in our digital, global world is to know which value, norm, or rule is relevant? Referring to Aristotle's concept of 'phronesis', Ess argues that there are no general rules. In the digital world people must draw on practical experiences before conclusions are made. The fact that ethical dilemmas are understood differently according to different cultures should be accepted. However, what is emphasised in ethical pluralism is the ability to learn from listening to other views. Thus, the emergence of SNS's, such as FB have paved the way for digital ethics that can help us to explain and understand the play between ethical responsibility and privacy.

## Literature review

SNS can be used for many purposes, such as accessing information, debating, socializing, and for entertainment (Brantzæg, 2012). The usage differs according the purpose of communication, i.e. MySpace, Flickr, YouTube, Twitter, LinkedIn, or FB. SNS are systems featuring Web 2.0 (dynamic web) functionally catering to large groups of users (Ellison et al., 2007; Brandtzæg & Heim, 2011). A distinction should be made between SNS and Learning management systems (LMS). An LMS is a broad term used for a wide range of systems that organize and provide access to online learning services. These systems usually include access control, provision of learning content, communication tools, and organization of user groups (Paulsen, 2002).

One SNS presented in this article is FB, which enables its users to present themselves in an online profile, accumulate "friends" who can post comments on each other's pages and view each other's profiles. FB members can also join virtual groups based on common interests (Ellison et al., 2007). Some of the existing research on FB focuses on identity presentation and privacy concerns (ibid.). Norwegian research suggests that individuals have a low degree of control concerning what is published about their private life (Brandtzæg & Lüders, 2009). FB-members claim that they are less concerned with security adjustments, since these are difficult to understand and argue that they find it safe to publish personal information since "everybody does it" (Brandtzæg & Lüders, 2009). The research concludes that, based on these attitudes, there is reason for concern about how private information is dealt with, especially in light of the commercial aspect of FB. It would be impossible for a company to make advertisements on the physical walls of a school building in Norway, while FB delivers it directly to the pupil's desk. Teacher education is responsible for educating pre-service teachers how to teach pupils in line with the National Curriculum Plan. According to Søby (2007), the Norwegian teacher education is largely unconcerned with teachers' digital competences.

According to Selwyn (2010), teachers should be warned against pedagogical uses of SNS as FB is an informal channel. Students use SNS predominantly for identity building rather than for educational purposes (Selwyn, 2010). Kirschner and Karpinski (2010) also caution against the use of SNS in education; the findings from an explorative study indicated a significant negative relationship between pupil uses of FB and academic performance. The interruption such activities have on learning in school has been found in other studies (Krumsvik et al. 2011). Others have emphasised how SNS usage is associated with social capital, such as face-to-face interaction, number of acquaintances, and bridging social capital (Brandtzæg, 2012), and making a distinction between "teacher-defined" activities and "off-task" activities (Mifsud & Mørch, 2010). "Off-task activities" are defined as negative activities and disruptions to lessons. Based on a socio-cultural perspective on learning, which focuses on the interdependence of social processes, tools, and mediated actions, they draw on the works of Vygotsky (1978, 1986); Wertsch (1995); and Säljö (2000). Through classroom studies Mifsud and Mørch (2010) argue that the assumption that learning is restricted to teacher defined activities needs to be updated. Instead of "off-task" they want to use the term "student-defined activities", because these activities may also provide educational gains. Mazer et al. (2007) agree that SNS is suitable for pedagogical work and claim that pupils are motivated when they connect with teachers who present information about themselves. However, Mazer and colleagues recognise that there can also be negative outcomes if teachers use FB for learning purposes, for example that the teacher reduces his or her professionalism.

Contemporary theory perceives learning as a horizontal process between multiple systems, such as school, work, and home. According to Roblyer et al. (2010), pupils are more likely to use SNS not only for social contact, but also as support for school work. Results of their study indicate that teachers and students have different opinions about use of FB as an educational tool. Students are more open-minded in regard to using SNS. Roblyer et al. (2010) warn that unless teachers change their attitudes, SNS may become yet another example of technology that had a great potential for improving education but failed to be adopted.

## Context

From an overall view, we now turn to the nation of investigation, Norway. In 2007 all Norwegian pupils in upper secondary school were given a computer (Blikstad-Balas, 2012). In the MoER National Curriculum plan of 2006, it is further stated that digital competence is regarded as one of

the five basic education competences, in line with reading, oral expression, writing, and mathematics (MOK, 2006). In Norway, as many as 98 per cent of the 15 year-olds report that they have always had an available computer at home (Frønes et al., 2011), which means that in Norway, almost all pupils are online. The average among OECD nations is 10 per cent lower (CERI/OECD, 2010). More than 40 % of Norwegian 15 year-olds report that they use the computer for assignments and collaborative activities once or more during a week (CERI/OECD, 2010). This is twice the average of other OECD countries. In addition almost all Norwegian upper secondary pupils report that they are online daily throughout the school day (Helleve & Johnsen, 2012). In the following the aim of the study will be presented.

## Overall aim of study

The overall aim of this study is to better understand how ethical education for pre-service teachers should be based on comparative knowledge about SNS usage among preservice teachers and pupils and how Governmental recommendations correspond to the two groups understanding of their schools' guidelines. More specifically, the research questions addressed are:

1. To what extent and for what purposes pre-service teachers (Study One) and pupils in upper secondary schools (Study Two) use SNS?

2. How the Government's recommendations correspond to the two groups' understanding of their educational institutions' SNS guidelines?

# Methodology

This paper reports data from two different studies. In the following section the methodology and results from the two studies will be presented together.

## Procedure

During 2011, data from pre-service teachers in their third and fourth years of professional teacher studies, as well as students in the program for Post Graduate Certificate in Education (PGCE), were collected from six teacher education institutions located in the north, middle, and eastern parts of Norway during 2011. The teacher education institutions were approached through gate-keepers (i.e., teacher educator personnel that the researchers already knew within each institution). Questionnaires were distributed and filled out with an across site response rate of 80 per cent (N=474). Approaching eleven schools located in the central region of Norway during 2011 gave data from pupils in upper secondary schools. The schools were approached through gate-keepers (i.e., pre-service teachers from the University). The web questionnaires were distributed and filled out with the Learning Platform "It's Learning"[1] (ITL, N=324). The pre-service teachers approached the pupils in their respective practicum classes across different schools by providing an invitation and an address to the web survey. Registration of how many of the pupils were approached and finally decided to participate was not made, which hampers the possibility of knowing the pupils' study response rate. Thus, a mixture of a convenience and purposive sampling procedure was applied (Coolican, 2004). Both studies have been approved by the Norwegian Social Science Data Services (NSD[2]). Numerical data was analysed with the IBM SPSS Statistics[3] version 20 and the open response categories were analysed with Microsoft Word and Excel.

## Samples

The mean age in the pre-service teacher sample was 30 (*SD* =8.2, *n* = 437) and 64 per cent of the sample were female. The mean age among the pupil sample was 17 (*SD* = 0.9, *n*=323) and 55 per cent of the sample were female.

## Questionnaires

This study applied an Australian questionnaire developed by Morris (2010) that consisted of five parts: part A: Demographic questions, part B: SNS questions, part C: Why not SNS use (Questions 1 to 2), part D: FB demographics, and part E: Evaluations of the appropriateness of a variety of potential interactions and behaviours (Questions E1 to E30). Part E was measured with the Professional Interactions and Behaviours Scale (PIBS, Morris, Watt, & Richardson, 2011, 2012).

The Norwegian version of the questionnaire was developed based on a committee approach (Brislin, 1970). This implies that several researchers read the questionnaire and translated it into the new language. Based on this, a consensus version of the Norwegian questionnaire was constructed. Then, the Norwegian version was back-translated to English by a professional translation bureau. The back-translated version was then compared to the original version. In addition to the five parts of the Australian original, the Norwegian version of the questionnaire also consisted of part F, which investigated SNS and teaching. The pupils' questionnaire was developed from the pre-service teachers' questionnaires, except for part E, and included some identical questions and some different questions.

Both questionnaires were piloted before application. The pre-service teachers' questionnaire was piloted by two of the authors as well as a colleague holding a Master's Degree in pedagogics and led to the inclusion of blogs as a type of SNS in part B, as well as to a change of questionnaire format. The pupils' questionnaire was piloted by two pupils in 10th grade and was supplemented with a question concerning FB for educational purposes between peer-pupils.

## Ethical issues

One of the ethical issues related to the project has been which role to play. It has been important not make moral judgments as to whether the application of social media in schools is good or bad, but explore this topic and provide data into what is *actually* going on in regards to SNS use among the two groups. This may again provide a common ground to discuss what actual situations look like and what our options and alternatives are concerning how we can understand and interpret the empirical data.

Another ethical issue is the impact of compliance when researchers invite participants to a study and are present when doing so. Approval for approaching participants in both studies was made to gate-keepers at teacher education institutions and schools. Gate-keepers then made internal requests to ensure institutional approval to approach the participants. Teacher educating institutions and schools are assumed to have an overview of studies undertaken and to have the capability to hinder over exposure of their pre-service students and pupils.

# Results

In the following section the results from the descriptive data analysis from both samples are presented. *Research question 1*: To what extent and for what purposes do pre-service teachers and pupils in upper secondary schools use SNS? The majority of pre-service teachers (90 %, *n*=411/456) and upper secondary pupils (97 %, *n*=315/324) reported having a SNS profile. The SNS with most pre-service teachers *not registered* was Bebo (98.2 %), LinkedIn (86.1 %), MySpace (81 %), Other, (78.4 %), Blogs (72.2 %), and Twitter (69.6 %) respectively, with Facebook being the SNS with least participants not registered (1.4 %). The SNS with most pupils *not registered* was Bebo (82.1 %), LinkedIn (81.5 %), MySpace (76.8 %), Blogs (67.3 %), Twitter (58.9 %), and Other, (51.5 %) respectively, with Facebook being the SNS with least participants not registered (1.8 %). In figure 1 and 2 the SNS usage and frequency among preservice teachers and pupils in upper secondary schools is illustrated.
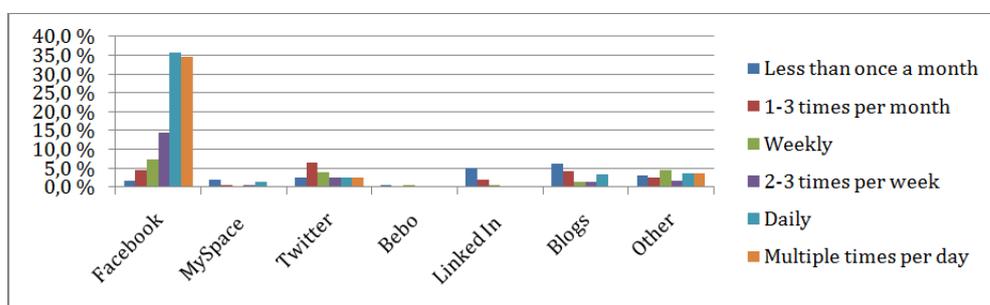


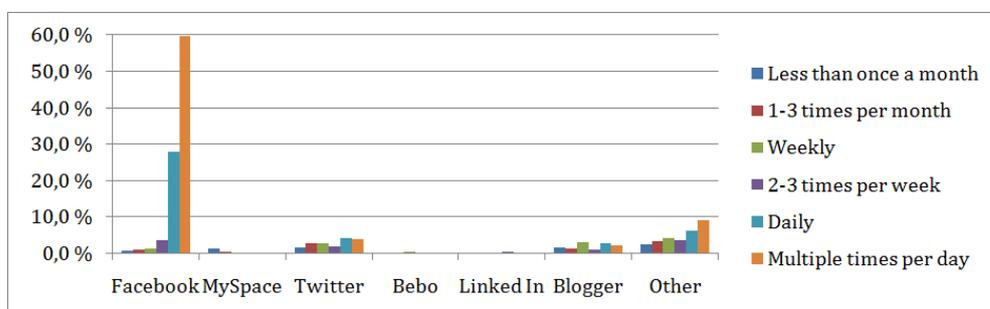*Figure 1. Currently applied SNS and frequency (%) among pre-service teachers (n=474)*



*Figure 2. Currently applied SNS and frequency (%) among pupils (n=324)*

Further, pre-service teachers as well as pupils report their top three motivations for SNS usage to be: (1) 'communicating with friends', (2) 'to keep in contact with old friends', and (3) 'sending or receiving messages'.
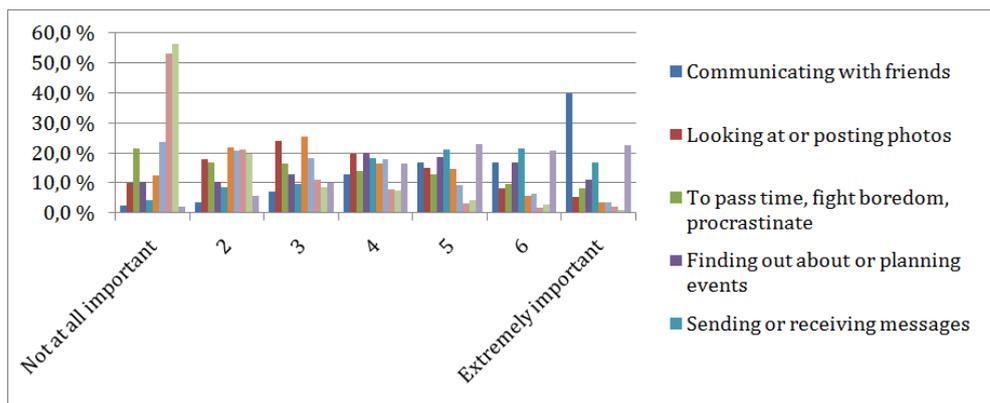
*Figure 3. Why do you use Social Networking Sites? Frequency (%) among preservice teachers (n=474). Rating (1= extremely important to 7= not at all important)*
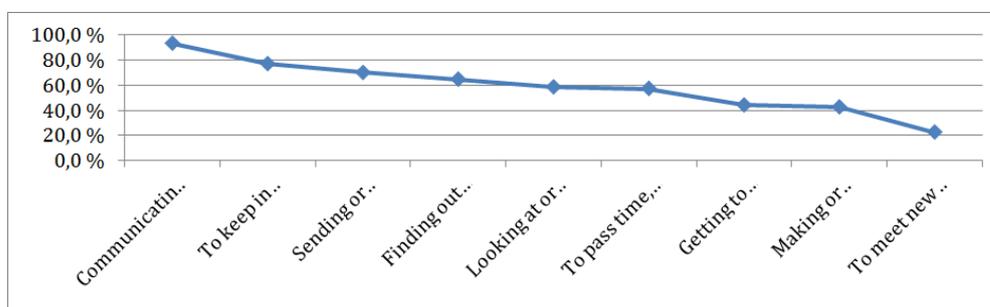


*Figure 4. Why do you use Social Networking Sites? Frequency (%) among pupils (n=324)*

On average, pre-service teachers had been members of FB for more than three years and had approximately 300 friends. When asked about prospective behaviour when qualified as teachers, nearly all (95.8 %) pre-service teachers reported that they would not send a friend request to a 'current pupil' at their school. Few (0.5 %) anticipate that they will delete their current account when they start teaching, and most pre-service teachers (82.2 %) would never send a friend request to a previous pupil (i.e. a pupil who has finished Year 12), nor accept a friend request from a current pupil at their school (81.6 %). Among pupils, most of them had been members of FB for more than three years and had over 400 friends. When pupils were asked similar questions, most reported that they would not send a friend request to another pupil's parent (82.2 %) or to a current teacher at their school (70.9 %). In terms of telecommunication with teachers, most (79.8 %) pupils would neither call a teacher about their private problems/difficulties or in general in their spare time (73.4 %). Figure 5 and 6 presents a visual summary of pre-service teachers' prospective online SNS behaviours and upper secondary pupils' thoughts on communication with their teachers in schools.
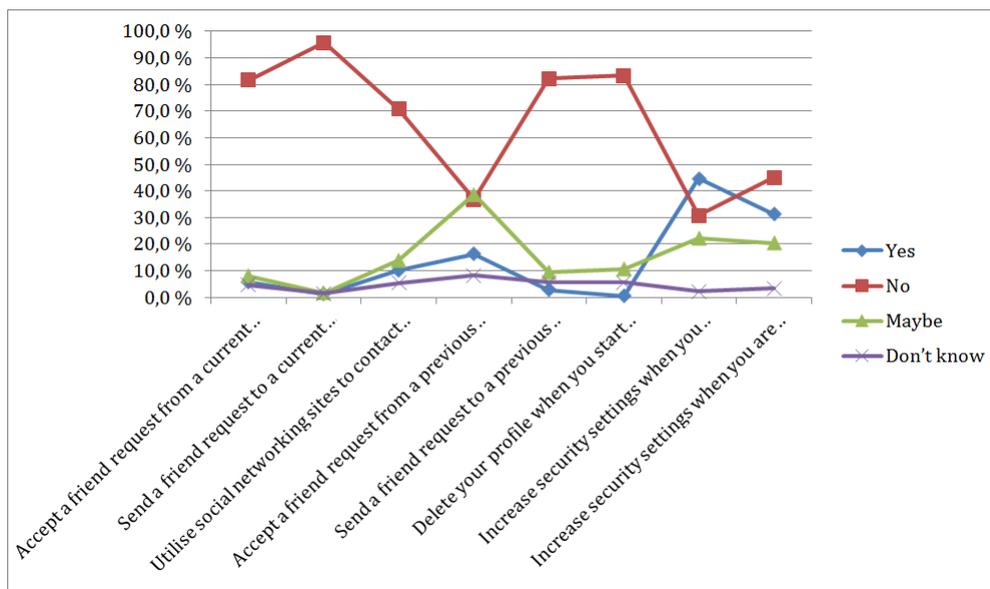
*Figure 5. Prospective actions preservice teachers report they are likely to do when they qualify as a teacher. Frequency (%, n=474)*
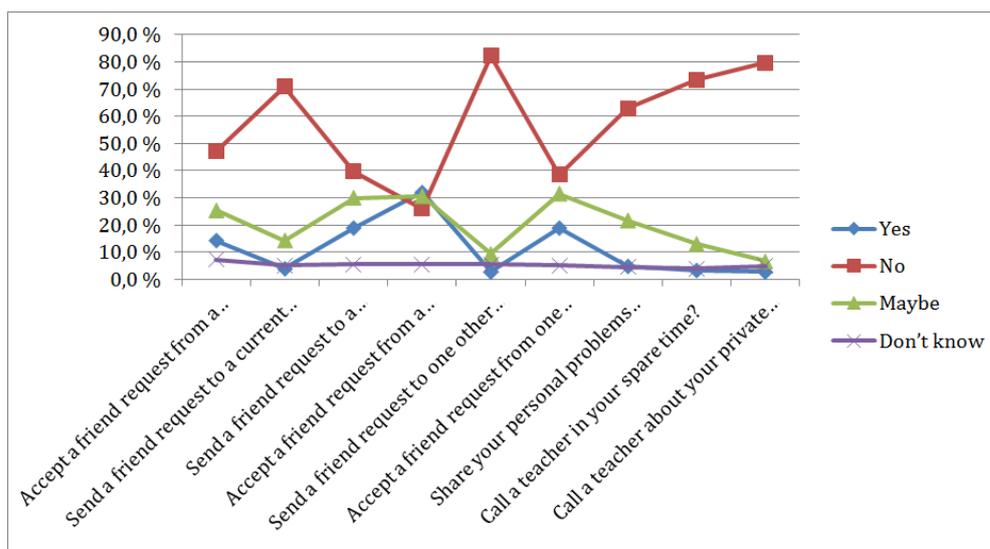


*Figure 6. When it comes to contact with teachers would you? Frequency (%) among pupils (n=324)*

A third (32.9 %) of pre-service teachers reported negative experiences whilst using SNS's. The data from the open response categories contained 134 answers. The results showed that the most frequent negative SNS experience was bullying (*n*=113). This category included mobbing, "face raping" (i.e., stealing another person's identity), sharing pictures and videos, quarrel, hatred, and gossip. One participant reported: *"A friend of mine was sued for comments made on Facebook"*. Other pre-service teachers had been contacted by unknown individuals (*n*=10). A small group (*n*=6) reported spending too much time on SNS. A few (*n*=3) were concerned with the privacy settings, for instance: *"There are unclear limits between your profile as a private person and the influence you experience from your professional life as a teacher (friends' experiences)"*.

Nearly 40 per cent of pupils reported negative experiences using SNS's, with 199 pupils providing open ended responses. The results showed that bullying was the most frequent negative SNS

experience (*n*=65). One example is a pupil that had to move to another school. She used her web-camera to show pictures of herself to a person she thought was her boyfriend. The person turned out to be her boyfriends' brother and his friends. These boys harassed her every time they met, which led to a situation where she developed psychological problems. The second most frequent experience was related to negative social emotional outcomes from using SNS, including anxiety about dependence on SNS and guilt for using SNS during lessons (*n*=32). In addition to these main experiences, a few (*n*=8) had been contacted by unknown individuals or reported fear of SNS addiction (*n*=3).

Approximately 20 per cent of the pre-service teachers had observed pedagogical use of SNS during their practicum. Over 70 per cent had not observed such usage, while a minority (8.5 %) did not know whether they had observed pedagogical use of SNS during class or not. With regard to their own teacher education institution, the majority (62.7 %) had not observed pedagogical use of SNS, while almost 26 per cent had, and almost 12 per cent were not sure. According to pupils, the minority (16 %) of teachers utilise SNS as a part of their teaching. Altogether 68 of the pupils supplemented their response by applying the open answer categories. The types of SNS most frequently used by teachers were mobile phones, ITL, and FB. Two examples of FB for educational purposes are: *"Once in a lesson in Norwegian we were asked to make poems of Facebook statuses"* and *"Our geography teacher has made a Facebook group where we publish videos and talk about the subject and things like that"*. Almost 70 per cent of pupils report that they use SNS during lessons or as homework for "on-task activities", as work and as homework. The data from the open response categories yielded 378 answers. The responses were coded into two main categories: *media* and *manner. Media* describes what they use for communication. FB (*n*=106) and mobile phones (*n*=29) are by far the most frequently used. Further they use Skype, msn, mail, wiki, and ITL. *Manner* describes the how pupils describe that they use SNS for pedagogical purposes. Here the main responses were: (1) communication (*n*=45), ask for help (n=41), share (*n*=33), collaboration (n=19), help others (*n*=17), and discussion (*n*=14). Some of the participants also arranged their own FB group where they could talk to each other, make plans, do their homework and share (*n*=13) and plan and exchange information (*n*=7).

*Research question 2*: How the Government's recommendations correspond to the two groups' understanding of their educational institutions' SNS guidelines? Around 50 per cent of the pre-service teachers were unaware whether their practicum schools had any guidelines regarding SNS usage or not. Almost 30 per cent knew about such guidelines, while some 20 per cent of the pre-service teachers reported that their school did not have one. The open response question yielded 101 responses and suggested two important *rules*. First, that teachers are not allowed to be friends with their pupils on FB (*n*=33). Second, that pupils were not allowed to use SNS during the lessons (*n*=28). The remaining responses revealed that schools had blocked the access to the Internet and pupils had to be admitted by the teacher (*n*=9), other schools focused on pupils' ethical awareness (*n*=13), while a minority of schools had written rules (*n*=8).

Close to 60 per cent of pupils were aware of the fact that their school has guidelines for SNS. The open answer categories yielded 189 pupil responses. By far, the most known rule is that pupils are not allowed to use FB during lessons (*n*=139). Pupils were not allowed to use the PC without teacher permission (*n*=44). A third of the pupils (32.7 %) did not know if such guidelines existed, while eight per cent were certain that their school lacked guidelines for SNS usage.

## Strengths and limitations

One of the strengths of this study is that it incorporates perspectives from both pre-service teachers as well as pupils. Still, the cross sectional study design limits inferences for SNS behaviour over time. A follow up study that can investigate these topics longitudinally is therefore under progress. A second strength of this study is that it investigates pre-service teachers from several geographical locations in Norway and the pupil data was collected from several classes at eleven schools. Yet, the pupil data was collected from only one geographical location, which limits the generalizability of study. Future studies are therefore encouraged to provide more data on this topic from pupils across different Norwegian geographical locations. Lastly, the data on SNS guidelines was gathered from third parties (i.e., pre-service teachers and pupils). Future studies are therefore needed to document the future existence of SNS guidelines in teacher education institutions and schools in Norway.

## Discussion

This study has investigated to what extent and for what purposes pre-service teachers and upper secondary pupils use SNS and how the Government's recommendations correspond to the two groups' understanding of their educational institutions' SNS guidelines. Regarding SNS usage, the results indicate that it is common for pre-service teachers as well as pupils to have an SNS profile. More than 90 per cent in both groups reported that they used FB daily. The main reason for SNS usage across groups is the wish to stay in contact with friends and family. This finding corresponds to other research within the field (Boyd, 2008). FB enables its users to present themselves in an online profile, accumulate friends who can post comments on each-others' pages, and view each other's profiles. SNS supports maintenance of existing social ties as well as the formation of new connections (Brandtzæg et al., 2010; Ellison et al., 2007).

The two groups also seem to agree when it comes to mutual friendship. None of them want to become friends with each other. They want to make a distinction between their lives as pre-service teachers and pupils and their private and social lives. In terms of using FB for pedagogical purposes the pre-service teachers and pupils reported little observation of such. Norwegian research shows that ICT mainly is used for administrative purposes for example sending messages, plans or completing homework through LMS (Arnseth et al., 2007; Erstad et al., 2005).

While teachers do not use ICT in general or FB in particular for pedagogical purposes, pupils do. The Norwegian Centre for ICT in Education[4] (Arnseth et al., 2007) has investigated how Norwegian pupils and teachers use ICT. They categorize SNS as a spare-time activity and claim that these activities are only sparingly reflected in schools. Consequently they distinguish between ICT school activities and spare-time activities in surveys (Egeberg et al., 2011). One reason for making this division is empirical, as multiple studies demonstrate that pupils have different kinds of access and use it for other activities in school than they do at home (Arnseth et al., 2007; Erstad, 2008; OECD, 2010). It is therefore important to make a separate category for school activities. The second argument is normative and claims that ICT used for educational purposes should reflect the schools' institutional requirements and education and not deal with digital media as entertainment (Egeberg et al., 2011).

According to the current study, SNS activities for pupils are to a large extent a combination of school activities and homework. The activities are initiated and driven by pupils themselves, not by

the teachers who do not participate in this private sphere. Close to three quarters report that they use SNS for homework and assignments. These findings are consistent with the findings from Mifsud and Mørch (2010) regarding "student-defined tasks". Their research concludes that the borders between deemed "teacher-defined" and "student-defined" tasks are porous. Our study shows that pupils also collaborate and interact through FB on activities that may be understood as "student-defined" or "learning". An example from the open responses says: *"If we have group-work and I need to communicate with other pupils, or if I feel uncertain about how to solve a problem, I can talk to them through for example FB and have their opinions on how the task should be solved. We also use it for sharing documents if we are working on common projects".*

The socio-cultural perspective addresses the social and cultural contexts. Computers cannot be seen as isolated objects (Wertsch, 1998). ICT, and in this case FB, offers an extra space for collaboration. In a socio-cultural perspective, learning may be understood as an innovative process of inquiry where something new is created. Engeström (1998) uses the concept "zone of possibilities" as an equivalent to Vygotsky's "zone of proximal development". What he shows is that when individuals collaborate they not only acquire existing knowledge; they also create new knowledge (Helleve, 2007). The pupils in the current study report that they collaborate, share, and learn from each other through FB. These activities run concurrently with social communication in which the pupils do not want to involve teachers or parents. The fact that pupils want to be on their own can be a reason why SNS may become yet another example of ICT that, according to Roblyer et al. (2010), schools can fail to adopt in spite of a great potential for improving education.

Fewer pre-service teachers than pupils were aware of the fact that the school where they spent their practicum or belong to as pupils have guidelines for how to use ICT. However, the two groups' general understanding of the guidelines' content seems to correspond. Either the pupils are not allowed to use their computer until the teacher tells them, or they are not allowed to use FB during lessons. Further, teachers and pupils are not allowed to be friends. The underlying attitude from schools seems to be that SNS should not be part of the pupils' school day, which contradicts the directive arguments from Norwegian political authorities.

The results showed that pre-service teachers and pupils have observed and experienced negative usees of FB, with pupils reporting such incidents approximately ten per cent more often than the pre-service teachers. That textual communication becomes a common rather than an individual property through ICT is discussed by Wegerif (2007), for instance. Referring to societies where oral, rather than written communication has been the norm, he claims that such cultures possess a kind of *"common wisdom"* that is absent in cultures where individual writing is more common. Additionally, the technology has the possibility of storing these texts forever (Helleve, 2012, but what is shared and stored may not necessarily be wisdom. It may just as well be harassing. One of the pupils says: *"what previously used to be private is now public".* This corresponds to Ess (2009) who claims that, when it comes to digital media, people are more vulnerable to violations of privacy than in face-to-face contexts. Schwartz (2010) argues that FB is an extension of the classroom for pupils. It can be likened to a lounge where all kinds of connections occur. The possibilities for sharing and storing false identities through "face raping", equals the possibilities for sharing student-defined tasks such as learning. Strikingly, pupils rarely share the information they have about negative experiences with others. Ess (2009) concludes that in order to overcome these challenges, the solution is to learn from others who think differently through what he calls ethical pluralism. This study shows that the different groups such as pupils and pre-service teachers seem to live in different digital worlds. An important task for teacher education institutions in future should be to teach students and pupils

to understand and learn from other peoples' ethical dilemmas, even those with whom they disagree. Ethical pluralism as described by Ess (2009) emphasises learning from empirical cases with no correct answers.

## Conclusion

The overall aim of this study was to investigate how ethical training for pre-service teachers should be carried out based on comparative knowledge about SNS usage among pre-service teachers and pupils and how Governmental recommendations correspond to the two groups understanding of their schools' guidelines. Summing up, pre-service teachers and pupils do not necessarily want to become friends. Both groups primarily use FB for maintaining social relations and contact. To a small extent, schools and teacher education institutions use SNS for learning purposes, while pupils use it a great deal. Both groups understand their schools' guidelines to be restrictive concerning use of SNS. Yet, Norwegian political authorities recommend SNS as a tool with pedagogical uses, claiming that SNS sites may strengthen the relevance of education and contribute to pupils' development of collaborative abilities, and social competences - especially since SNS is used so enthusiastically by pupils. SNS contact includes positive as well as negative experiences. The Ministry of Education and Research has applied the metaphor "to build a bridge to young individuals' lives" (MER, 2008-2009, p. 27, our translation) to describe their ambition of ICT in school. According to this study, it seems to be difficult to build bridges between pupils' and future teachers' private worlds through SNS like FB. The two groups express a desire to stay separate, and even if they should want to use SNS to stay in contact, schools' guidelines would be a hindrance. The study indicates that schools, teacher education policy-makers, and future teachers, as well as pupils, seem to have different expectations concerning how SNS should be used in education. Schools are motivated to warn and protect their pupils and teachers against use of SNS in spite of the strong political requests of its importance. Further complicating the situation, Norwegian pupils are surrounded by technology and pre-service and professional teachers have no national ethical guidelines. According to Ess (2009) the essence of digital media ethics is to develop a shared understanding based on norms and values that are interpreted through the lenses of different traditions and applied in different cultural contexts. Learning from disagreement and different opinions seems to be necessary if the different groups are to build bridges across different opinions.

In Norway there are Governmental ambitions and a high level of ICT in and outside school. Still, the decisions of how, when, and why ICT should be used in education seems - to a large extent - left to the personal and private choices of individual teachers. One way to go about this is to include these issues into the centre stage of ethics in teaching and to learn from the perspectives of others (Ess, 2009). Teachers' attitudes and values have previously been found to be critical in shaping how ICT is implemented in school. In order to encourage pre-service teachers to reflect on how to deal with challenges connected to SNS in education, teacher education is crucial.

## Acknowledgements

# References

Almås, A. G. (2009). *Teachers in the digital network society: Visions and realities: A study of teachers' experiences with the use of ICT in teaching and learning.* Bergen: PhD thesis. University of Bergen.

Arnseth, H. C., Hatlevik, O. E., Kløvstad, V., Kristiansen, T., & Ottestad, G. (2007). *ITU Monitor 2007: Skolens digitale tilstand 2007 [ITU Monitor: The condition of the "digital school" 2007].* Oslo: Universitetsforl.

Blikstad-Balas, M. (2012). Digital literacy in upper secondary school: What students use their laptops for during teacher instruction? *Nordic Journal of Digital Literacy, 7*(2), 81-96.

Boyd, D. (2008). Friendship. In M. Ito, S. Baumer, M. Bittanti, d. boyd, R. Cody, B. Herr-Stephenson, H. A. Horst, P. G. Lange, D. Mahendran, K. Z. Martínez, C. J. Pascoe, D. Perkel, L. Robinson, C. Sims & L. Tripp (Eds.), *Hanging out, messing around, and geeking out: Kids living and learning with new media.* Cambridge, Mass.: The MIT Press.

Brandtzæg, P. B. (2012). Social Networking Sites: Their Users and Social Implications — A Longitudinal Study. *Journal of Computer-Mediated Communication, 17*(4), 467-488.

Brandtzæg, P. B., & Lüders, M. (2009). *Privat 2.0: Person og forbrukervern i den nye medievirkeligheten [Privacy 2.0: Privacy and consumer issues in the new media reality].* Oslo, Norway: Sintef Ikt.

Brandtzæg, P. B., Heim, J., & Kaare, B. H. (2010). Bridging and bonding in social network sites: Investigating family-based capital. *International Journal of Web Based Communities, 6*(3), 231-253.

Brandzæg, P. B. & Heim, J. (2011). A typology of social networking site users. *International Journal of Web Based Communities, 7*(1), 28-51.

Brislin, R. W. (1970). Back-translation for cross-cultural research. *Journal of Cross-Cultural Psychology, 1*(3), 185-216.

Carlgren, I., & Marton, F. (2001). *Lärare av i morgon [Teachers of tomorrow]* ([Ny utg.] ed.). Stockholm: Lærarförbundet.

Carter, H. L., Ewbank, A. D., & Fougler, T. S. (2008). Have You Google'd Your Teacher Lately. *Phi Delta Kappan, 89*(9), 681-685.

CERI/OECD. (2010). *Are the new Millennium learners making the grade? Technology use and educational performance in PISA.* Paris, France: CERI/OECD.

Coolican, H. (2004). *Research methods in psychology (4*th *ed.).* London: Hodder & Staghton.

Egeberg, G., Guðmundsdóttir, G., Hatlevik, O. E., Ottestad, G., Skaug, J. H., & Tømte, K. (2011). *Monitor 2011. Skolens Digitale tilstand [Monitor 2011. The condition of the "digital school" 2011]*. Oslo: Unipub. Retrieved September 13th 2012 from: http://iktsenteret.no/ressurser/monitor-2011-skolens-digitale-tilstand.

Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The Benefits of Facebook "Friends": Social Capital and College Students' Use of Online Social Network Sites. *Journal of Computer-Mediated Communication, 12*(4), 1143-1168.

Engeström, Y. (1998). Den nærmeste udviklingssone som den basale kategori i pædagogisk psykologi [The proximal zone of development as the basic category in pedagogical psychology]. In M. Hermansen (Ed.), *Fra læringens horisont*. Århus: Klim.

Erstad, O. (2008). Changing assessment practice and the role of IT. In J. Voogt & G. Knezek (Eds.), *International handbook of information technology in primary and secondary education* (pp. 181-194). New York: Springer.

Erstad, O., Kløvstad, V., Kristiansen, T., & Søby, M. (2005). *ITU Monitor 2005: På vei mot digital kompetanse i grunnopplæringen [ITU Monitor: On the way towards digital competence in basic instruction]*. Oslo: Universitetsforl.

Ess, C. (2009). *Digital media ethics*. Cambridge: Polity Press.

Frønes, T. S., Narvhus, E. K., & Jetne, Ø. (2011). *Kortrapport. Elever på nett. Digital lesning i PISA, 2009 [Short report: Pupils online. Digital reading in PISA, 2009]*. Oslo: Universitetet i Oslo. Retrieved September 13th 2012 from: http://www.udir.no/Upload/PISA/Digitale_leseferdigheter_kortrapport_itrykk.pdf?epslanguage=no.

Helleve, I. (2007). In an ICT-based teacher-education context: Why was our group "the magic group"? *European Journal of Teacher Education, 30*(3), 267-284.

Helleve, I. (2010). Theoretical foundations of teachers professional development. In J. O. Lindberg & A.D.Olofsson (Eds.), *Online learning Communities and Teacher professional Development. Methods for Improved Education Delivery* (pp. 1-19). New York: Information Science Reference.

Helleve, I. (2012). Differences and Similarities in Approach between Classroom and Distance Learning. In J. L. Moore & A. D. Benson (Eds.), *International perspectives of distance learning in higher education.* (pp. 253-272). Retrieved September 13th 2012 from: http://www.intechopen.com/books/international-perspectives-of-distance-learning-in-higher-education/differences-and-similarities-in-approach-between-classroom-and-distance-learning: InTech.

Helleve, I., & Johnsen, C. (2012). Skulen sine dilemma i den digitale kvardagen. *Utdanning*(6), 52-55.

Kirschener, P. A., & Karpinski, A. C. (2010). Facebook and academic performance. *Computers in Human Behavior, 26*, 1237-1245.

Kjærnsli, M. (2007). *Tid for tunge løft: Norske elevers kompetanse i naturfag, lesing og matematikk i PISA 2006 [Due time for heavy lifts: Norwegian pupils PISA competencies in science, reading and math 2006]*. Oslo: Universitetsforlaget.

Krumsvik, R., Ludvigsen, K., & Urke, H. B. (2011). *Klasseleiing og IKT i vidaregåande opplæring [Class leadership and ICT in upper secondary school education]*: DLC-rapport nr.1/2011. Universitetet i Bergen. Web link:http://folk.uib.no/pprrk/Krumsvik_PPBU_rapport_uib_2410_2011/#/1/.

Kuss, D.J., Griffiths, M.D. (2011). Online social networking and addiction: A review of the psychological litteature. *International Journal of Environmental research and Public Health, 8*, 3528 – 3552. Retrieved April 29th 2013 from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3194102/pdf/ijerph-3194108-3103528.pdf.

MER (2003).[Undervisings-og forskningsdepartementet] [UFD]. The Program for digital competence 2004-2008[Program for digital kompetanse 2004-2008]. Retrieved November 23, 2013, from: http://www.regjeringen.no/en/dep/kd/documents/reports-and-actionplans/Actionplans/2006/programme-for-digital-competence-.html?id=502075

MER, (2008-2009). Whitepaper 11, [Undervisnings- og forskningsdepartementet] [UFD]. The Teacher. Role and Education. [Læreren Rollen og utdanningen] http://www.regjeringen.no/nb/dep/kd/dok/regpubl/ stmeld/2008-2009/stmeld-nr-11-2008- 2009-.html?id=544920 (accessed 18 March 2009).

Mazer, J. P., Murphy, R. E., & Simonds, C. J. (2007). I'll See You On "Facebook": The Effects of Computer-Mediated Teacher Self-Disclosure on Student Motivation, Affective Learning, and classroom Climate. *Communication Education, 56*(1), 1-17.

Mifsud, L., & Mørch, A. I. (2010). Reconsidering off-task: A comparative study of PDA-mediated activities in four classrooms. *Journal of Computer Assisted learning, 26*(3), 190-201.

MOK. (2006). The Knowledge Promotion. The new national curriculum. Retrieved October 23, 2008, from: http://odin.dep.no/kd/english/topics/knowledgepromotion/bn.html

Morris, Z. A., Watt, H. M. G., & Richardson, P. W. (2011). *Measuring professional identity development of pre-service teachers in the 21*[st] *century*. Paper presented at the Australasian Human Development Association 17th Biennial Conference, Dunedin, New Zealand, July 4-6.

Morris, Z. A., Watt, H. M. G., & Richardson, P. W. (2012). What is pupular is not always right: Measuring teacher professional behaviour. *Joint AARE APERA International Conference, Sydney 2012*.

OECD. (2010). *Inspired by technology, driven by pedagogy: A systemic approach to technology-based school innovations*. Paris: Centre for Educational Research and Innovation. OECD Publishing.

Paulsen, M. F. (2002). Online education systems: discussion and definition of terms. Retrieved November 23, 2013 from: http://www.porto.ucp.pt/open/curso/modulos/doc/Definition%20of%20Terms.pdf

Roblyer, M. D., McDaniel, M., Webb, M., Herman, J., & Witty, J. V. (2010). Findings on Facebook in higher education: A comparison of college faculty and students' uses on perceptions of social networking sites. *The Internet and Higher Education, 13*(3), 134-140.

Schwartz, H. L. (2010). Facebook: The New Classroom Commons? *Education Digest: Essential Readings Condensed for Quick Review, 75*(5), 39-42.

Selwyn, N. (2010). *Schools and schooling in the Digital Age: A critical Perspective.* New York: Routledge.

Säljö, R. (2000). *Lärande i praktiken: Et sociokulturelt perspektiv [Education in practice: a sociocultural perspective].* Stockholm: Prisma.

Søby, M. (2007). Digital stillstand i lærerutdanningen? [Digital stagnation in teacher education?]. *Nordic Journal of Digital Literacy*(3), 135-137.

Utdannings- og forskningsdepartementet. (2004). *Program for digital kompetanse 2004-2008 [Programme for digital competencies 2004-2008].* [Oslo]: Utdannings- og forskningsdepartementet [Norwegian Ministry of Education and Research]. Retrieved September 19th 2012 from: http://www.regjeringen.no/en/dep/kd/documents/reports-and-actionplans/Actionplans/2006/programme-for-digital-competence-.html?id=502075.

van Manen, M. (2010). The Pedagogy of Momus Technologies: Facebook, Privacy, and Online Intimacy. *Qualitative Health Research, 20*(8), 1023-1032.

Vygotsky, L. S. (1978). *Mind in society. The Development of Higher Psychological Processes.* Cambridge, MA: Harvard University Press.

Vygotsky, L. S. (1986). *Thought and language.* Cambridge: The MIT Press.

Wegerif, R. (2007). *Dialogic Education and Technology.* Lausanne: Springer.

Wertsch, J. (1998). Vygotsky and Bakhtin on Community. In O. Dysthe (Ed.), *The Dialogical Perspective on Bakhtin.* Bergen: Conference Report. Programme for Research on Learning and Instruction.

Wertsch, J., del Rio, P., & Alvarez, A. (1995). Socio-cultural studies: History, action and mediation. In J. Wertsch, P. d. Rio & A. Alvares (Eds.), *Sociocultural studies of mind* (pp. 1-34). Cambridge: Cambridge University Press.

---

1    http://www.itslearning.co.uk/

2    http://www.nsd.uib.no/nsd/english/index.html

3    http://cikguamirul.files.wordpress.com/2011/10/spss-survival-manual-4th-edition.pdf

4    http://iktsenteret.no/english

5    https://www.uib.no/rg/dlc/projects/ethics-social-media-and-teacher-education