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Engaging Student Teachers in Academic Reading and Reflection Using Social Video-Sharing

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Abstract
This article reports on how a social video-sharing platform can engage student teachers in academic reading and reflection. The concepts of social, cognitive, and teaching presences are utilized as a theoretical framework. Data from a survey (n = 37) and interviews (n = 8) from two different cases were analyzed to illuminate how video production and sharing can create meaningful reading experiences. The findings indicate that both pre-and in-service teachers emphasize the need for proper *social* organization to become comfortable with sharing videos and reflections. The students grew *cognitively* in academic discussions and collaborations in the prepared context. *Teaching* a course design based on a tight framework is acknowledged as disciplining in a good way. These findings provide knowledge about quality and is a reminder to teachers of the crucial elements of incorporating a digital platform into academic reading and reflection.

Keywords
Teacher education, social media, video-sharing, academic reading

Introduction

Reading is often perceived as the entrance to learning, particularly in higher education and thus an important competence for the students. An equally important competence is the proper use of technology in students' learning (Korseberg et al., 2022). In this article, we report on a study carried out among pre-service and in-service student teachers in Norway. Using a video-sharing platform, we aimed to facilitate a social learning community characterized by the students' reflections and search for meaning and understanding of professional literature. This article contributes to how a social video-sharing platform can engage student teachers in academic reading and reflection.

Nathanson et al. (2008) found little evidence for enthusiastic reading among US in-service and pre-service teachers. Belgian research report that about one fourth of pre-service teachers enters the profession with a negative reading attitude (Vansteelandt et al., 2017). Previous research also indicated that Norwegian pre-service and in-service teachers reported little interest in reading literature (literary fiction) and that reading was "experienced as being too difficult to cope with" (Skaar et al., 2018, p. 312). This lack of enthusiasm for reading (Applegate & Applegate, 2004; Kennedy, 2013) was also validated by nearly half of the pre-service teachers in Applegate et al.'s (2014) study. In reading academic texts, Huang (2017) reported that pre-service teachers believed that such reading was tedious and less interesting than reading other types of materials. Students studying education were not characterized as active readers, and pre-service teachers did not enroll in teacher education with a uniformly high level of reading competency—neither did they come with consistently positive attitudes toward reading (Benevides & Peterson, 2010). This indicates that teacher educators should work with these students' ways of dealing with syllabus literature.

An overview by Broemmel et al. (2019) showed that only a few in-service teachers tended to read professional literature because of limited time and a lack of relevancy. A core challenge could be that they tend not to see links between what they read and themselves (Applegate et al., 2014). An implication of these findings is that higher learning institutions should emphasize the construction of knowledge through active interaction between lecturers and students (Fook & Sidhu, 2015; Nordentoft et al., 2013).

Digital Tools for Supporting Reading and Reflection

Research and experiences related to in-service and pre-service teachers' reading highlight the need to reconsider ways of supporting beginner teachers in developing as literates to promote reading activities (Huang, 2017) and foster positive reading attitudes (Broemmel et al., 2019; Vansteelandt et al., 2017). As with teaching and learning, reading is being altered by new technologies. There are great expectations of learning with information and communications technology (ICT) in higher education and the need to develop new practices through the use of digital learning resources (OECD, 2019). However, the utilization of ICT in higher education has resulted in little transformation or improvement so far (Haugen et al., 2019; Tømte, 2015). In teacher education in Norway, digital resources are mostly used to present learning content to students and for communication. They are least commonly used for collaboration between students or for promoting academic discussions (Daus et al., 2019).

It has been suggested that integrating technology could foster students' reading interest and motivation (Huang et al., 2014), and that teacher education should prepare pre-service teachers to integrate technology in various ways (Huang, 2017). Broemmel et al. (2019) suggested that teachers should be required to engage in professional reading and that there should be additional support, such as "reading groups or learning communities" (pp. 14–15). Since many student teachers seem to lack motivation and enthusiasm, teacher educators need to use motivational strategies that promote student reading and self-efficacy in critical thinking during students' academic activities, especially in hybrid and digital learning communities. Merga and Moon (2016) explicitly highlighted the social dimensions and argued that future research should explore "how social influences potentially shape student attitudes and engagement with books, especially with attention to how e.g. teachers and the peer group may influence students' attitudes and engagement" (p. 124). Furthermore, Huang (2017) suggested that college professors should "create opportunities for online small groups of students to discuss their reading using social media" (p. 599). This idea fits well with Garrison's (2017) suggestion that future research should place "greater emphasis on

issues of how to meaningfully engage learners effectively in face-to face and online contexts as we move to sustained collaborative forms of learning" (p. 108).

University experiences indicate that the social community, Flipgrid,[1] can increase student engagement and their "connectedness to the course, peers, instructor, and program" (Bartlett, 2018), and can "help to create cognitive presence, social presence, and teaching presence" (Holbeck & Hartman, 2018). These studies illustrated that Flipgrid has been used as an alternative avenue for group discussion and synthesizing thoughts. While analyzing student teachers' academic use of video blogs, Hontvedt et al. (2020) demonstrated that the use of video has the potential to create a common focus, and under certain conditions, it can contribute to the creation of interesting partnerships and relevance in teacher education.

Against this background, the current study was developed. We aimed to facilitate a social learning community characterized by the students' reflections and search for meaning when dealing with professional literature by using a social video-sharing platform. The research question guiding the study was as follows:

> What characterizes social, cognitive, and teaching presences when teacher educators engage student teachers in academic reading and reflection using a social video-sharing platform?

As this research question is closely connected to presence, this constitutes our theoretical foundation.

Theoretical framework

Garrison's (2017) Community of Inquiry (CoI) framework has a theoretical background in Dewey's and Vygotsky's learning perspectives—emphasizing collaborative thinking as desirable and necessary for creating a deep and meaningful learning experience through the development of three interdependent concepts: social, cognitive, and teaching presence. **Social presence** is the ability of students to identify with a group, communicate openly in a trusting environment, and develop personal and affective relationships. **Cognitive presence** is closely associated with critical thinking and is related to intent, transactions, and learning outcomes. **Teaching presence** calls for an architect and facilitator to design, direct, and inform the transaction if it is to be productive and sustainable (Garrison, 2017).

The CoI model emphasizes a learning environment in which students feel a connection with other learners and the lecturer and engage in collaborative learning. Using this framework, we seek to address the multidimensionality of reading (including the affective and cognitive aspects of reading), as suggested by Vansteelandt et al. (2020).

Our study

Two cases were evaluated in a teacher education program at a Norwegian university. The first case involved students in the master's program, *ICT in learning*. The second involved students in a bachelor's program in *special needs education*.

We investigated the characteristics of Garrison's presences when exploiting a social video-sharing platform to increase the students' academic reading and engagement in theoretical reflections at and between seminars. More precisely, we wanted to investigate whether Flipgrid could serve as a community, providing lecturers and students with a joint platform to

1. info.flipgrid.com

make connections and build **social presences** as a supplement to campus activities. Furthermore, we wanted to collect experiences using the video-sharing platform as a tool for reflections and synthesizing thoughts—as a **cognitive** arena for teacher students to conceptualize their reading experiences. When students make their reading thoughts public, lecturers can use this as a point of departure for the next lecture. As such, the current study has the potential to improve knowledge of how we can enhance the learning experience among student teachers by using digital tools that could improve our **teaching presence**.

Methods

In this explorative study, our qualitative approach was based on a survey (n = 37) and interviews (n = 8) from two different cases:

A group of 29 bachelor's students in special needs education. This bachelor's group consisted of pre-service teachers in the last (3rd or 4th) years of their professional teacher education program (240 credits). The teaching took place primarily on campus.

A group of 30 students from the master's program, ICT in learning. This master's group mostly consisted of in-service teachers supplementing their teacher education program with a master's degree. The teaching took place online via Canvas, but students met face-to-face on campus for two 3-day meetings (at the start and midway).

Description of the Learning Activity

All students took part in a 12-week trial in 2019, with regular video production and sharing (5–10 times) on the platform. All students worked during the semester on the following learning tasks: Select one of the syllabus texts. Make a video (maximum 3 minutes long), where you respond to:

1. What personal experiences do you have that can be linked to the content?
2. What phrases or part(s) of the content would you like your teachers to explain or elaborate?

The students' videos were uploaded to the private community (associated with the study program), where the teachers and students could watch each other's videos.

Survey and Interviews

This research was based on qualitative data consisting of a survey and subsequent interviews. The survey consisted of 25 questions derived from the "Community of Inquiry Survey Instrument" (Arbaugh et al., 2008), which was translated into Norwegian. A survey using a five-point Likert scale was distributed to all 59 students (answer rate 62.7%), while interviews were conducted via Skype with four students from each case. Survey data were used for the selection of interview candidates. The respondents were ranked with a score reflecting their positive and/or negative attitudes and experiences with the learning activity. To illuminate the variation and the "outer edges" of our material, we selected four students (two students from each group) with high scores and four with low scores for the interviews. The interviews were individual (approximately 25 minutes each). The interview guide was semi-structured in accordance with the three presences (social, cognitive, and teaching presence) from the CoI framework (Garrison, 2017).

Data analysis

In this article, the interview data were the primary data. We used the survey data to give an overview (n = 37) (quasi statistics, (Yin, 2014)), while the interview data provided more in-depth descriptions and insights on how the students reflected and substantiated their experiences and opinions.

The response rate in the groups was distributed as follows: bachelor group (n = 22) and master group (n = 15). When presenting trends as percentages, we merged "Strongly agree" and "Partially agree" as positive tendencies and "Strongly disagree" and "Partially disagree" as negative tendencies, and left "Undecided" unmerged.

A theoretical thematic analysis (Braun & Clarke, 2006) was chosen for analyzing the interview data. The codes were an abstraction of textual data, which were identified and sorted into categories related to the CoI framework, emphasizing cognitive, social, and teaching presence (Garrison, 2017). Key terms from the CoI survey instrument (Arbaugh et al., 2008) were used to identify presences.

Limitations

The results presented as percentages should be cautiously interpreted in such a small-scale study. Further, the response rate was low, particularly in one of the student groups. However, qualitative analysis of interview data was emphasized in this article, contributing to a deeper insight into the important mechanisms involved in higher education when teacher educators and students make use of technology in learning activities.

Findings and Discussion

The CoI framework sets out three *presences* that must exist within an effectively functioning community of inquiry. Although these presences were separately considered, they frame a learning community that works through a complex interplay of each of these multidimensional presences. To understand how they worked collectively, we analyzed them individually.

The findings from our survey and interviews are presented together under the thematic headings *social, cognitive, and teaching presence.* For practical purposes Garrison's categories (2017, p. 28) and its indicators within each of the presences are used to structure the discussion. Indicators are italicized phrases that suggest the presence of the categories (p. 27). Quotes from students who highlighted positive and negative experiences were outlined, and the students were coded T1 to T8.

Social presence

Social presence is about developing respect and trust within the community, which allows and encourages full participation in learning activities. In this section, themes related to *affective expressions*, *open communication*, and *group cohesion* will be discussed.

Affective Expressions

The survey answers showed that there were more master's students (73%) who were comfortable than those in the bachelor's group (41%). Overall, only two students thought that the activity potentially provided a breeding ground for negative comments.

Recording oneself and using an unfamiliar app is a challenge for many people. When we asked students during the interviews to elaborate on what influences their *affective expressions* negatively, this was confirmed. They reported that it was "embarrassing" to see and

hear themselves. Storing the videos on a common platform so that students in the class could see each other's contributions was also highlighted as uncomfortable. Some added that they did not like to speak in plenary sessions. From previous research, we know that public speaking is the single most commonly feared situation in the population (Ebrahimi et al., 2019). This emerged in our interview data, as the students expressed that they were "insecure" and thought the activity seemed "scary" and "unpleasant."

Surprisingly, the bachelor's group (the youngest) was the most uncomfortable. This was unexpected, as 48% of Norwegian 9–18-year-olds made videos of themselves weekly (Medietilsynet, 2020) and 16–24-year-olds were the primary Facebook and social networking site users in Norway (Schiro, 2020). Since these media barometers referred to private use, one explanation for this may be the difference between private (informal) and professional (formal) use. This difference between groups could also reflect their age and maturity, with the master's students being more confident in themselves as professionals.

Regarding the factors that positively influenced the students' *affective expressions*, the organization and framework conditions were highlighted. The students found it reassuring that the activities took place in a space with a close group of students and with consideration of their privacy. The technical and practical formats were also mentioned. T1 stated that contributing is "plain sailing" in activities that are not "live":

> …But in writing, i.e., writing on forums and things like this (post videos), I think it is plain sailing (T1).

In this quote, the student appeared to appreciate the opportunity to work at their own pace, and make adjustments to their own reflections and views during the process, before publishing their work. It also provided an opportunity to look at fellow students' contributions, as mentioned by T3. Some also stated that they found it beneficial for later use, and discovering such potential created a positive attitude. They pointed out that they used the video contributions later in the study for review and in working on exam assignments.

The analysis of the interviews also shows that the way in which the activities were organized made a positive contribution.

> I thought a bit like everyone is in the same boat. It is just as weird and embarrassing for everyone (T8).

Since the activity was the same for everyone, and the conditions for all students were uniform, the students gained confidence and a feeling of security. The fact that the activities extended for some time, allowing the students to become familiar with them, also seemed to make the process more comfortable, as they "got used to it" (T4, T7). The majority of our interviewees agreed that they were skeptical at the beginning, but they also reported that, overall, it went very well. Designing digital activities for online socialization to familiarize students is crucial to successfully engaging students (Salmon, 2013). As such, video-sharing may facilitate a sense of social affiliation.

Open Communication

The survey results show that 92% of students were comfortable in group discussions. Fewer (70%) were comfortable with plenary discussions, but the majority of the students (89%) indicated that they felt their expressed views were as highly valued as those of their fellow

students. This indicates that a good atmosphere and arena for open communication were created in the two cases examined.

In the interviews, the small group activities were highlighted as particularly positive. The students expressed that there was more discussion and that it was useful to get the others' views and interpretations of the text that was read. However, the students generally thought it was "unpleasant" to take the floor during the discussion, and that they would rather contribute via chat when possible (T4), despite the fact that the atmosphere in both student groups was characterized as good—disagreement was allowed (T7), there was a good atmosphere and interest in sharing (T4), and no one said anything unpleasant or made fun of anyone (T4).

Group Cohesion

In the survey, 81% of the students expressed that watching each other's videos gave them a good sense of belonging. However, only 59% thought they "became better acquainted with more of my fellow students than in other subjects". In getting to know their fellow students, the analysis showed that the two groups differed. Only 40% of the master's students' group agreed, compared to 73% of the bachelor's group. It is reasonable to believe that this is due to differences in group organization and activity *on campus*. Nevertheless, T4 belonged to the master's group, and in such a session-based study course, the learning activity contributed positively "because one gets an impression of people outside sessions and online meetings". Still, the students in this group emphasized that one does not become "acquainted on a personal level" (T4, T2).

Organization and activity over time have a positive impact on student discussions. The students felt more confident through such activities; the quality of the conversations improved throughout the course and caused them to feel that they "have something I can contribute with" (T4).

Cognitive presence

Cognitive presence is closely associated with critical thinking and speaks to intent, transaction, and learning outcomes (Garrison, 2017). In this section, the findings related to *triggering*, *exploration*, and *resolution* will be presented and discussed.

Triggering

In the survey, 78% of the students stated that the learning activities made them curious, but the master's group expressed more curiosity than the bachelor's group (94% vs. 68%). Furthermore, 87% stated that they agreed that the learning activity motivated them to explore the subject matter.

Analysis of the interview data indicated that the students were curious and motivated because it was a new activity and different from writing an individual assignment (T8). The application threshold, which "is so easy just recording" and "less formal" (T2), was also highlighted. Considering the slow uptake of digital tools in higher education (Haugen et al., 2019), this insight is particularly useful. This activity was highlighted as "more motivating than to write (replies) in Canvas, sort of" (T2).

The students in our study linked the social perspective to their own curiosity and motivation. Sharing in a group was perceived as useful. In Finlay and Faulkner's research (2005), students reported that they read "a broader range of material, more critically, and employed more active processes of learning" through peer collaboration (p. 43) and that this was helping students engage with the research literature. In a study of Belgian pre-service teach-

ers, only 33.6% were identified as socially oriented readers who liked to share their reading experiences (Vansteelandt et al., 2017). Our interview data indicate that the students' access to their peers' reading inspires their own reading and selection of texts (T4). Informants from both groups expressed that sharing their reading experiences with fellow students motivated and put pressure on their own reading. Vansteelandt et al. (2017), found that even those who did not like reading (39.5%) "showed the willingness to interact with others" (p. 113). As such, the focus on social presence in our project, and the fact that 92% of the students reported feeling comfortable in group discussions indicate an untapped triggering potential.

Exploration

According to our survey data, few students (27%) used other sources of information in addition to the syllabus text (e.g., websites, lecture notes, Google) to explore the subject matter prior to recording. This was not required by the task that was presented to the students. However, an unambiguous finding from Huang's (2017) research is that the use of interactive teaching methods and digital tools also made students want to read more about the texts. In our survey, it is worth noting that there was a difference between the groups. There were students using more information sources in the master's group than in the bachelor's group (47% vs. 14%). However, it is expected that the more experienced master's-level students would show relatively more commitment and exploration.

The survey also showed that 92% of the students felt that the assignment related to reading made the subject matter more understandable and relevant. Furthermore, many thought that watching their fellow students' videos (86%) and group discussions (92%) helped them understand the subject matter.

Teachers have reported that a lack of relevance is one of the primary reasons they do not read (Broemmel et al., 2019). Freedom of choice in learning activities was also emphasized by our respondents. The master's students could choose individually, while the bachelor's students had to agree within a small group what they all should read. The opportunity for students to make their own reading choices in the curriculum stimulates reading:

> I was much more geared up if I found an article I liked very much. And I read it several times. I thought more carefully of what I actually read (T4).

The interviews revealed how students processed and dealt with the subject matter. They made summaries, identified, and noted key words and key phrases during reading, and made test recordings before making the video (T1, T4, T7).

The social dimension associated with the activity also caused the students to watch each other's videos "as many times as you want" (T6). This was experienced as "useful" (T4) and "instructive" (T2, T3, T6), and the students got hints on how they could read and process the subject matter themselves (T4). The students also said that such sharing provides broader and deeper insights (T2–T8).

The activity also stimulated students to reflect on the subject matter between the lectures and the sessions (T7), and thus probably contributed to a high and even "learning pressure" throughout the semester.

Resolution

The majority of the students thought that they were able to read *more thoroughly* than usual during the project period. This is probably related to the fact that they (84%) read the syl-

labus *earlier* in the semester than usual, and that they (81%) read *more of the syllabus* in the course than usual.

In these three statements (in italics above), there are certain differences between the groups, and the master's group generally agreed more on the positive outcomes compared to the bachelor's group (93–100% vs. 81–86%). It is reasonable that this is related to the level of study; master's students are generally more motivated and critical in their reading (Finlay & Faulkner, 2005).

The students reported that clear instructions related to the activity made their study techniques more efficient. They also stated that the activity was more thorough and yielded more benefits. T5 explained this by saying that they were able to "learn best when I get to talk about it".

Teaching presence

Teaching presence requires an architect and a facilitator to design, direct, and inform the transaction if it is to be productive (Garrison, 2017). Although students and teachers are responsible for the learning process, the need for leadership becomes apparent when merging on campus and online learning using ICT (Nilsen et al., 2013; Garrison, 2017). The need for an educator to shape and assess learning activities cannot be underestimated. The discussion of the findings related to teaching presence will therefore focus on *design and organization, facilitation,* and *direct instruction.*

Design and organization

Student-centered learning environments must provide opportunities through specific learning activities and tasks, as well as forms of feedback that provide supportive learning (Damşa & de Lange, 2019). Huang (2017) showed that the amount of time pre-service teachers spend on academic and extracurricular reading is directly influenced by teaching styles, assignments, and reading materials. As lecturers, we experience and appreciate the importance of significant framework conditions (Nilsen et al., 2013; Damsgaard, 2019). Garrison's dimensions of teaching presence were used to orchestrate a collaborative learning experience in this project. It is therefore not surprising that almost all (97–100%) of the students agreed that there were clearly articulated *goals* connected to the activities, as well as *technical instructions* and *instructions related to* expected work effort and deadlines. Setting deadlines and essential rules also contributed to a majority of the students agreeing that the organization and the totality of the learning session resulted in high "learning pressure" throughout the semester.

Clark et al. (2015) suggested that students "felt greater teaching and social presence when discussions occurred with video posts and synchronous videoconferencing as compared to text based discussions" (p. 62). Similarly, Flynn-Wilson and Reynolds (2021) found that students expressed "a significant preference for virtual synchronous over asynchronous online course delivery" (p. 55). For this reason, we find it expedient to facilitate synchronous meetings, even if the technology allows for a large amount of asynchrony and flexibility. The learning activities in this project were largely asynchronous, with a deadline for completion in advance of the mandatory meetings and group work. The students expressed that this was disciplining in a good way. Garrison (2017) pointed out that "learning experiences are a function of the evolving relationships among the presences" and "that the presences evolve in concert which reveals the developmental nature of a community of inquiry" (p. 30). To achieve this, a solid substructure was necessary.

Facilitation and direct instruction

In our study, the majority of students agreed that the teaching helped them to understand the subject matter, and that the learning activities contributed to a better connection between the student's academic position and the teaching. Furthermore, 87% of the students reported that the lecturer helped to center the academic discussions on relevant topics so that the students learned. Hontvedt et al.'s (2020) study of video blogging in teacher education emphasized that contextual framing was crucial for the students' video reflections to have a function in their learning and the development of the sessions. One aim of the lecturers in orchestrating the learning activities was to link the subject matter more closely to the students' personal experiences and questions, as the students often strived to see the links between their reading and their private selves (Applegate et al., 2014). The responses from the students indicated that this was successfully accomplished.

In the videos, the students were encouraged to present questions about the subject matter. In the interviews, they reported that they appreciated that the teachers included these questions in the teaching. The students also emphasized the added value of having fellow students ask questions that they did not realize they were wondering about themselves. When the lecturers addressed the issues raised in the videos, the students expressed that they received "very good and reflective answers" and that the teacher explained things more thoroughly so "that we got a little deeper understanding of what we were wondering about" (T6).

Conclusion

The learning activities analyzed in this article were based on the active use of digital technology to renew, simplify, and improve higher education teaching. In this research, we investigated what characterizes social, cognitive, and teaching presences (Garrison, 2017) when teacher educators engage student teachers in academic reading and reflection using a social video-sharing platform.

Regarding ***social presence,*** our research emphasizes the need for proper arrangements and organization for students to become comfortable sharing videos. The stable framework conditions were positively experienced over time, and the students experienced better quality in the exchange of reflections.

The social dimension triggered and inspired students' academic engagement and discussion. With regard to ***cognitive presence***, we found our younger students to be less curious. These students reported that they felt uncomfortable and insecure. Using tools from social media, we successfully initiated academic discussions and collaboration among students over time. A benefit of the activity is that students perceived the practice of outwardly expressing their thinking as contributing to enhancing the quality of their reading and reading outcomes.

As lecturers concerned with ***teaching presence***, we should know that a solid substructure is necessary. The students appreciated the course design based on a tight framework and reported that it was disciplining in a good way. The transparency that the videos provided also revealed peers' competencies in the community, and almost like teaching assistants, they provided answers their fellows had not yet considered.

The findings were discussed to extract how we could use the platform to enhance student teachers' engagement and academic reading. We linked the enhancement to the amount of academic reading pertaining to in-depth reading, volume, time spent, and reading at an early stage.

This article is limited to a specific tool and leads to precise knowledge on how using a

video-sharing platform can facilitate reading and collective reflection. Looking at academic reading and reflection through the lenses of Garrison's categories we have confirmed the complexity of teachers work when preparing for academic reading. However, our small-scale qualitative approach has also provided insight into how technology can be used in teacher education since utilization of ICT in higher education has resulted in little transformation or improvement so far (Haugen et al., 2019).

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