Online Learning for Master Students and Their Organisation of Employment in Proactive Review

Ditte Kolbaek and Ulrika Lundh Snis

Aalborg University, Department of Learning and Philosophy, Copenhagen, Denmark
\text{dk@learning.aau.dk}

University West, Trollhättan, Sweden \text{ulrika.snis@hv.se}

Abstract: This paper analyses an online community of master’s students taking a course in ICT and organisational learning. One assignment for the students was to initiate and facilitate an educational design for organisational learning called Proactive Review in the organisations where they were employed. The study explores the interplay between the students’ learning activities at work and in their master study. By using an online discussion forum on Google groups, they created new ways of initiating and reflecting on learning. We used netnography to select qualitative postings from the online community. Our findings include implications for changing communications from the spoken word to the written word, which lacks spontaneity but supports equality among students in regard to “being heard”. Our contribution to research shows how students changed practices of organisational learning in their organisations of employment.

Keywords: Educational design, organisational learning, expansive learning, online community, technology-mediated learning.

1 Introduction

Educational design and organisational learning have long focused on forms of collaboration and learning conceptualisations that develop between educational institutions and organisational workplaces (Lundin et al, 2008). Two overarching questions direct us towards this field of research, where learning in the contexts of work and education form a common basis for integrative approaches: (1) How do students use their formal studies to prepare for professional work? (2) How do professionals reflect on their work practices to enhance their professional skills? In this paper, we refer to the practice of integrating an educational design of formal learning with student interventions in real work situations in which they try out an educational design for organisational learning called Proactive Review. Our focus is
directed towards an individual level of learning in which professionals – as students of master’s courses – identify new ways of learning and are encouraged to learn from their experiences in real work settings. In the analysis, we reconsider Engeström’s model of expansive learning (Engeström, 2001) and outline new implications for further expansion of elements in the model. Hence, our research question is: How do master’s students use Proactive Review in the context of work to create new ways of thinking and develop their agency to make changes that practically impact their organisations of employment? The aim of this study is twofold: (1) to learn from new, alternative possibilities of knowledge sharing that lead to new ways of thinking and learning for professionals of different workplaces, and (2) to examine how their new ways of thinking influence their practices. The students are active in two human activity systems (Engeström, 2001) during a period of time, as they are students in a programme called “Master’s in Information Technology and Learning” (MIL) on the one hand, and practitioners in their professional organisations on the other hand. First, we analyse how students become influencers in their organisations of employment by creating new and common meanings of their experiences with Proactive Review in the community of fellow students. Second, we examine the development of the students’ identities as facilitators, which is a new role for them. Third, we examine the enhancement of their professional practice-skills.

2 Theory

In this section we present reasons for running master studies online, and a brief overview over our theoretical foundation from Engeström’s human activity system together with Dewey’s work on experience, followed up by a brief description of Proactive Review as an educational design for organisational learning.

2.1 Online education

Learning communities are groups of students that work together to learn and solve goals and tasks. For students taking courses via the Internet, learning communities are important for motivating students to continue studying and to pass their courses (Yuan & Kim, 2014). Young and Norgard (2006) agreed that learning communities are essential for online learning to work effectively. Within a learning community, students work together and affect others in the group; the group itself is important for its members. Distance learning should therefore provide the tools or channels of communication for students to hold group discussions, ask questions, collaborate, and learn in a group (Yuan & Kim, 2014).

Some studies show that students are much more comfortable when they can interact with other students and teachers using a communication medium, such as an online learning community. More specifically, students prefer being able to interact with other students and the instructor in the same forum, as it increases students’ learning in a meaningful way (Lyons, Reysen, & Pierce, 2011; Young & Norgard, 2006).

However, most research on the use of computers in educational settings discusses the actual role of technology in various and somewhat “black-boxed” ways.
Some studies consider computer support a tool for supporting human activities such as productive writing and reviewing (e.g., authoring tools), while other studies discuss technology as a medium enabling various forms of synchronous or asynchronous communication (e.g., online learning communities and technology-mediated learning). A third view on technology takes an information systems approach in which a system (e.g., a learning management system) is contextualised as an infrastructure, supporting installed and integrated databases along with functions and resources to access such database services (see for example Lundh Snis and Svensson, 2004; Svensson et al. 2008).

Our view on technology aligns with socio-cultural views in which social interaction is mediated by cultural tools and technical mediums (Wenger, 1997; Säljö, 2000; Orlikowski, 2000). Different technologies are embedded into a learning context of social and technical relations and resources. For instance, the online learning community in this study shares a technology-mediated forum, which supports communication mainly asynchronously. Students use written communication to share reflective posts with the forum in a threaded discussion. Online learning communities might share the same properties as communities of practice, as their practices are a joint effort in understanding how to learn and integrate a learning object with a learning subject collaboratively, mediated by technology.

Based on the role of technology in learning, we consider Engeström’s (2001) concepts and elements of expansive learning an appropriate foundation for integrating and developing our knowledge of learning in a master’s course in the context of work.

2.2 Expansive Learning

The theory of expansive learning, which describes learning in the context of work (Engeström, 1996), includes different elements to note when studying learning in this context. In this study, an organisation is perceived as an activity system and framed as a subject that strives to achieve an object (Cole & Engeström, 1993; Engeström, 2001). The subjects of learning in the activity system are the individual employees (Engeström, 2001, p. 136). The process (of achieving the object) is influenced by rules and regulations from inside and outside the organisation (the activity system) and the community to which it belongs. Additionally, the move (to achieve the object) is influenced by the division of labour in the specific context, as well as by the tools (mediating artefacts) available for achieving the object (Engeström, 2001, p. 136). See Figure 1.

Fig 1. Structure of two interacting human activity systems (Engeström, 2001, p. 136).
In this study the students are present in two interacting human activity systems, namely as students in the MIL course on the one hand and as employees in their professional organisations on the other hand. One objective is to pass the MIL course, and the other is to become a more skilled practitioner. The overlapping objectives are the mastering the content of the MIL course and practicing this content, in this case Proactive Review, in the organisations of employment (i.e., an educational design for organisational learning). The interacting human activity systems enable us to explore two developments simultaneously, namely, how students develop new identities as facilitators, and how these students as professionals utilize the new insights to influence their professional practices.

According to Engeström’s (2001) “human activity system”, the students are called subjects. The model in Figure 1 shows that the students take on at least two roles, namely, the role of a master’s student in the activity system of the university and the role of an employee in their professional organisation.

In the activity system of the university, the students had roles as students and utilized the required tools, namely, the Proactive Review, which was discussed in a Google group. They accepted the rules of the course, which were to participate in a face-to-face seminar, conduct a Proactive Review in their professional organisations, and discuss their experiences in the Google group. They perceived themselves as members of the community of students in this specific course, and they accepted the division of labour, which was to deliver a minimum of three comments in the Google group and respond to inputs from fellow students or teachers.

In the activity system of their professional organisations, the students were professionals in their organisations, where they strived to become more skilled practitioners (hence their participation in the master’s course). They belonged to a community and accepted the division of labour, the rules, and the mediating artefacts in the organisations where they were employed.

The object in the triangle of the human activity system may be formulated explicitly or involve implicit contradictions between new objects and available tools or rules. Tensions may occur over time when new ideas or requirements clash with employees’ current methods of working. Such tensions may lead to contradictions between the old and the new. Engeström (2001) claimed that such contradictions should be welcomed because, even though they often imply disturbances and conflicts, they are the starting points of new inventions and changes.

The employees invest effort towards learning to participate in “culturally valued collaborative practices in which something useful is produced” (Engeström, 2001, p. 141). They solve work-related problems, and in doing so, they learn. According to Engeström, the key actions for learning in the context of work include questioning, analysing, coming up with tentative solutions, and reflecting on and evaluating the process of learning.

Our aim is to enable master’s students to learn from not only their individual experiences but also the experiences of their peers. As Engeström (2001) did not specifically elaborate on the term “experience”, we draw upon John Dewey in this regard. Both Engeström and Dewey and Boydston (1976) perceived learning to be context based. Engeström described six elements of this context, whereas Dewey and Boydston described learning as a function of experimenting with the world.
According to Dewey and Boydston, “the world” will most likely include the context in which learning takes place.

To ‘learn from experience’ is to make a backward and a forward connection between what we do to things and what we enjoy or suffer from in consequence. Under such conditions, doing becomes a trying, an experiment with the world to find out what it is like; the undergoing becomes instruction—the discovery of the connections between things. (Dewey & Boydston, 1976, p. 147)

According to Dewey and Boydston (1976), experience is obtained through our actions and interactions with the world, provided that we reflect upon what we try to do and what happens as a consequence (Dewey & Boydston, 1976, p. 151). Dewey stressed that knowledge and action are intertwined and that knowledge influences future experience because knowledge and experience are closely linked (Elkjaer & Simpson, 2011).

According to Dewey and Boydston (1976), experience is gained through activities (“what we do to things”), and such experience involves emotions (“what we enjoy or suffer from”). In his book, The Middle Works, written in, Dewey referred to “we” as learners in the sense that all humans “experience”, as experience stems from experimenting with things. The starting point is a sense that something is wrong, which is an emotion followed by an urge to solve the problem. We “experiment with the world” to find out what it takes to solve a problem; consequently, learning from experience involves an individual and the world (Dewey & Boydston, 1976, p. 147). To clarify the problem, we explore and analyse it, which leads to elaboration of tentative suggestions for solutions. These must be evaluated in practice and refined. This flow of activities leads to the development of experience. Experience is created by the interaction between thinking and doing. Experience occurs when we connect our ways of acting with the consequences of these actions (Dewey & Boydston, p. 152), and experience gives us an advantage when we solve problems (Dewey & Boydston, p. 350). Experiences are based on the past, utilised in the present, and retained for use in the future (Dewey & Boydston, 1976). Learning from experience involves experimenting with the world and reflecting on such experimentation.

While Engeström’s (2001) “human activity system” describes important elements of learning in the context of work, Dewey (1976) added dimensions of learning from experience. Engeström (2001) claimed that the starting point of learning in the context of work is contradictions between old and new, and the motivation for learning is based on the urge to participate in cultural valued practices, whereas Dewey and Boydston (1976) point at “problems” as the starting point for learning and claimed that we learn from inquiry and reflection, which lead us to solving problems and controlling actions. The theories emphasize that learning processes include tentative solutions. Furthermore, learning is based in a context and leads to practice.
2.3 Proactive Review
A Proactive Review is an educational design for organisational learning that initiates learning in at least three ontological dimensions, namely individual learning, team learning and learning throughout the organisation (Kolbaek, 2014b). A Proactive Review consists of seven open questions that should be asked in a specific sequence in order to start up and maintain a dialogue between the participants. A Proactive Review has two tangible results that leads to organisational learning: First, an action and communication plan, second, a management challenge.

An organisation may benefit from Proactive Reviews to learn from experience from anywhere in the organization and to address innovative solutions to problems and issues. An organization may be challenged by Proactive Reviews if learning is not a part of the strategy or if the management levels do not want to receive requirements from the “grassroots” (Kolbaek, 2014, a).

3 Methodology
The netnography methodology was originally developed to study consumers for specific marketing purposes (Kozinets, 2002). However, we used parts of this methodology for studying learning and personal development to become a more skilled practitioner and facilitator. We argue that the netnographical approach fits this study because we looked for students’ interactions and meaning as they thrived in written online discussions.

Kozinets (2002) recommended distinguishing between tourists, minglers, devotees, and insiders when analysing messages of online community members. For this study, we denoted ten MIL students and two MIL teachers as insider members of the online community. The community members with the strongest social ties to the group, who maintained a strong interest in the central consumption activity, were considered insiders. They were the most enthusiastic, actively involved, and sophisticated users and thus the most important data sources.

We used netnography because the nature of interaction among the participants could not be face-to-face but rather computer-mediated, written, and conversational. Without denying its ethnographic relevance, netnography appears even more legitimate to classify or position content analysis of online communication between discourse analysis, content analysis, and ethnography (Kozinets, 2010). We used qualitative methods for our netnographical approach, namely, observation of an online discussion forum, that is, a Google Group discussion forum. “Observation” in this regard may be perceived to be like the observation of a physical community (Kozinets, 2002). Additionally, the qualitative methods included semiotic analysis for investigating emotions and contradictions and problems expressed in the online discussion forum.

As recommended, we contacted the community members to obtain their permission (informed consent) to quote directly their specific forum posts in the research (Kozinets, 2002, p. 65).
4 Research Setting and data collection

4.1 Research Setting
We look into students attending the MIL course in Denmark. Admission requirements for an MIL course include a bachelor’s degree or a professional BA, as a nurse or a teacher, for example, and at least two years of work experience based on the bachelor’s degree, including technical skills in IT (http://www.evu.aau.dk/master/mil).

Training course in Proactive Review
This study investigates a “module” of five ECTS credits included in the MIL course. The students in the study were in their first or second year of their master’s study in ICT and Learning (MIL). We are interested in how the students comprehended and experimented with Proactive Reviews.

Given that the purpose of this study is to learn about influencers in professional organisations, we will describe briefly our understanding of “influencers”. An employee may be considered an “influencer” when (s)he shapes his/her organisation’s operational space or practices. This is done by interacting, communicating, and collaborating with colleagues, which leads to shared ways of perceiving possibilities for action (Shotter & Cunliffe, 2004). When these master’s students attempted the educational design for learning in the context of their workplaces, they became influencers in their professional organisations, as they collaborated with colleagues to change operational spaces or practices.

The object was for the student to gain insights into organisational learning from theoretical and practical perspectives, and the students were required to create experience in this regard during the module. They created experience by initiating and facilitating Proactive Review in their own or in a fellow student’s organisation.

The tools and mediating artefacts are the educational design, Proactive Review, which may be seen as an instrument used to probe learning in the professional organisation of the student. The tools for learning and collaboration within the student groups were a four-hour, face-to-face seminar followed by participation in an online community in which they reflected collaboratively in a written format in a Google group for 11 days.

To pass the course (the rules), the students were required to participate in a face-to-face seminar, conduct a Proactive Review in their organisation of employment, and discuss their experience online in a Google group. The themes of discussion in the online forum were (1) preconditions of participants in Proactive Review, (2) preparation as a facilitator of Proactive Review, and (3) dynamics of power-distance within Proactive Review. These themes are important for understanding the implications of the Proactive Review process. Even though the themes are well described in a book, the students were advised not to read about the themes beforehand because the teacher/researcher wanted the students to learn inductively rather than deductively.
The community in the Google group comprised 10 students and two teachers. The students shared their reflection (and learning) of the intervention through written communication. The online community embraced 10 other communities, that is, the organisations in which the students were employed, which gave an insight into how Proactive Review was perceived in different settings. The students became influencers when they introduced Proactive Review as an intervention in their respective organisations of employment.

The division of labour in the Google group community consisted of both the teachers’ and students’ tasks. The students were required to deliver a minimum of three comments in the Google group, and the teachers were required to ask for more details, make conclusions on the inputs, and contact students who did not meet the required attendance (in order to help them pass).

4.2 Data collection

The data were generated from three discussions in a Google group that could be accessed only by the students, teachers, and researchers. These discussions, which lasted for 11 days, contained 75 comments from the community. The comments were made in Danish and Norwegian, which we have translated into English for this paper.

Table 1 shows the activities of the students and the teachers/researchers as they appeared in the Google group. The column “Degree of participation” includes a capital letter for each participant and a number that describe how many times the participants contributed to the discussion. For example, 4T means that the teacher contributed four times in the first discussion, eight times in the second discussion, and nine times in the third discussion.

<table>
<thead>
<tr>
<th>Discussions running 7–16 Jan 2014</th>
<th># Active students</th>
<th># Comments</th>
<th># Students’ comments</th>
<th>Average comment length</th>
<th>Answers/responses</th>
<th>Degree of participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussion 1 Precondition of participants</td>
<td>8</td>
<td>20</td>
<td>16</td>
<td>11.3 lines</td>
<td>9</td>
<td>C, 2E, 2G, 3H, 2L, 3P, 2S, 4T, W</td>
</tr>
<tr>
<td>Discussion 2 Preparation</td>
<td>9</td>
<td>29</td>
<td>21</td>
<td>12.0 lines</td>
<td>14</td>
<td>4B, 3C, 3G, L, 7M, 2P, S, 8T, W</td>
</tr>
</tbody>
</table>

In the discussion about participant preconditions in Proactive Review, eight students and a teacher/researcher made 20 comments, of which four were made by the teacher. On average, the 20 comments were 11.3 lines in length. Two students contributed with only one comment each, whereas the other six students commented two to three times. Nine of the contributions represented comments or questions
regarding inputs from other students. In the discussion about the *preparation for Proactive Review*, the nine students and the teacher/researcher made 29 comments with an average comment length of 12.0 lines. Thirteen comments exceeded the average, eight comments were written by the teacher/researcher, and 21 comments were made by the students. Four students contributed with three comments or more. Fourteen utterances were comments on contributions from other students or the researcher/teacher, six of which were very short statements of agreement by fellow students. We saw a high level of reflection, very often “provoked” by fellow students rather than by the teacher. In the discussion about *power-distance*, the ten students and the teacher/researcher made 26 comments with an average comment length of 13.5 lines. Thirteen comments exceeded the average comment length of this third discussion and 16 comments exceeded the average of 12 lines in the second discussion and the average of 11.3 lines in the first discussion. The teacher/researcher made nine contributions. Only two students contributed three times, whereas the other students contributed one or two times. Fourteen contributions were answers to or comments on inputs from other participants, implying that the students actually involved themselves in the written discussion as opposed to simply delivering their personal statements without reflecting on the thoughts expressed by fellow students.

When looking into the students’ activity, the data show that M delivered nine comments shared between the two themes, with seven comments in one theme and two comments in the other. W delivered only three comments, one in each theme. Most students delivered five to six comments. Half of the students contributed to all three themes, while the other half contributed to only two of the themes. Based on an 11-day discussion, including a weekend, the students commented every second day on average. The data show that not all students participated to the same extent, but the differences were small. Compared to an oral discussion, it seemed that “outspoken” students take less space in written communication, whereas “silent” students are less silent in the written format. The data suggest that the written format enables greater equality in regard to “being heard”.

The development of the comment length and the development in the responses to inputs from fellow students indicate that the students became more familiar with the written discussion format as they developed their skills as authors.

5 Analysis: learning from experiences

The data used in this particular study consisted of the community members’ posts and interactions and their meanings. Based on this content, we analysed and interpreted the data using concepts inspired by Engeström (2001) and Dewey and Boydston (1976), such as semiotic terms and practice theory of learning and reflection. One of the researchers was an MIL teacher, who introduced and concluded the dialogue among the students. When appropriate, the teacher/researcher asked questions or clarified a term to support the students’ reflections.

The students experimented with Proactive Review in their professional organisations, and then followed up with reflections in the online community. As stated in chapter 3, the reflections were clustered into three problems, namely: (a) participants’ precondition, (b) preparation for Proactive Review, and (c) power-
distance between the participants in the Proactive Review or the power-distance between the facilitator and the participants.

In the following analysis, we focus on the context of the online discussion in this MIL course about Proactive Review. We are not directly interested in how Proactive Review was implemented in the organisations of employment per se, but in how the students comprehended and experimented with Proactive Review and finally reflected upon their experience in order to achieve both the object of the MIL course, which was gaining insights in theory and practices of organisational learning, and the object of becoming a more skilled practitioner in their professional organisation. More importantly, the manner in which this reflection and learning was represented and played out in the online learning community (Google group) is of interest to us.

Our analytical themes stem from the theories that this paper is based upon, as well as the objectives of the two human activity systems the students attended in parallel. The first objective was to pass the MIL course by attending a face-to-face seminar, conducting a Proactive Review in their professional organisations, and discussing their experience in the online discussion forum in order to become facilitators. The second objective was to become a more skilled practitioner in their professional organisations by becoming influencers. According to Dewey and Boydston (1976), learning from experience involves emotions, hence we should look for emotions in the texts. According to Engeström (2001), learning starts with a contradiction, disturbance, or conflict, whereas Dewey and Boydston (1976) pointed out “the sense that something is wrong” as the starting point for learning. Both Engeström and Dewey and Boydston emphasise tentative suggestions and solutions as an important part of the learning process. Hence we analysed the texts in relation to the following analytical themes: (1) problems and contradictions, (2) tentative suggestions and solutions, (3) developing an identity of being a facilitator, and (4) becoming influencers in their professional organisations.

The themes we looked for and their representations in the material are summarised in Table 2.

Table 2. Analytical themes in Google group discussion

<table>
<thead>
<tr>
<th>Learning from experience</th>
<th>Observation and quotes</th>
<th>Emotions and Semiotic terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analytical themes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problems and contradictions</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Tentative suggestions and solutions</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Developing an identity of being a facilitator</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>• Experimentation with the world and reflections on their organisations of employment</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>• Creating experiences based on the past, using them in the present, and retaining them for the future</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Becoming influencers in their professional</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
We obtained the results from netnography by reading the discussion in the online community, which may be perceived as being like observation of a physical community, and we used semiotic terms to analyse the utterances in order to understand the meaning behind them. Below, we present our analyses, including quotes from the students as they thrive in the online discussion forum.

5.1 Looking for emotions
Out of the three discussions including the themes (a) participant preconditions, (b) Proactive Review preparation, and (c) power-distance, only one comment expressed frustration. One student wrote: “Only 6 out of 10 arrived prepared for the meeting. What on earth do you do as a facilitator?” In utilising semiotic analyses, it seems like this written communication is formulated very much as it would be if spoken orally. It represents frustration as a direct reaction to a critical situation. All other comments in the written conversations were less spontaneous, expressing reflection rather than reaction.

5.2 Problems and contradictions
According to Engeström (2001) and Dewey and Boydston (1976), the learning process takes its departure from contradictions or problems. Consequently, we looked for utterances in which the students expressed problems or contradictions as the starting point of their learning process. The students shared problems or contradictions in their online discussion; for example, one student asked, “Only 6 out of 10 participants prepared before attending the meeting. What do you do as a facilitator, when six out of ten delegates arrive unprepared?” This question initiated five more inputs including suggestions for tentative solutions to the problem.

These follow-up inputs served the collaborative process of analysing and elaborating tentative suggestions from the others’ perspectives as well. This, in turn, led to a collaborative and reflective dialogue among the students.

Other students were uncertain about the feasibility of Proactive Review in their professional environment. A student shared a contradiction, as follows: “Proactive Review will be hard at my workplace, if used as a knowledge-sharing strategy… [T]o spend three hours on a single meeting will not be easy to juggle at my workplace”; such a time commitment was difficult even though the student’s workplace explicitly focused on continuous learning. The discussions indicated that the students collaboratively created new forms of thinking and acting with regard to organisational learning in their organisations of employment.

We see that the students experimented with the world and reflected on their actions (Dewey & Boydston, 1976), leading to development of both the individuals and their environments (Elkjaer, 2003). This discussion indicated that the students created and discussed essential knowing by formulating problems and contradictions, implying that they reflected on not only their personal experiences, but also other students’ experiences. Their contributions to the collaborative reflection developed
them into more skilled influencers in their organisations of employment, as they became aware of a process to approach problems and contradictions related to learning from experience in their professional organisations. The students created new meanings of what it takes to initiate and maintain learning in their professional organisations.

5.3 Tentative suggestions and solutions
Because an important part of the learning process is coming up with tentative suggestions and solutions (Engeström, 2001; Dewey & Boydston, 1976), we found it interesting to determine whether the students elaborated on their experience to solve the problems and contradictions they shared.

The students faced various difficulties in preparing (described above) to be facilitators at the commencement of the Proactive Review. A student considered the requirements for running a worthy Proactive Review and suggested, “It is important that the sponsor and the facilitator thoroughly consider who should participate [in the Proactive Review]”. This comment indicates that the student considered the basis of the educational design of Proactive Review.

During the discussion on creating trust in organisations of employment, a student referred to literature on the topic: “Mads Schramm describes in the book, Virtuel ledelse, (Dansk Psykologisk Forlag, 2012) that trust is fundamental for online collaboration”. This may be seen as an attempt to create a tentative solution by suggesting relevant literature, even though none of the students attempted to facilitate online PRs.

More students shared their problems with initiating the Proactive Review process, and other students replied with suggestions for solutions such as “initiate a prepared self-presentation” or “start with an icebreaker”. One student pointed out the importance of the time frame and the agenda, and suggested offering refreshments to the Proactive Review participants.

When the students explained contradictions or problems, the online discussions enabled them to come up with tentative suggestions and solutions that fitted not only their respective organisations of employment, but also professional organisations in general. We cannot know the extents to which these suggestions and solutions were implemented in the students’ organisations of employment, but we can see that the students commented on the suggestions and found them useful. This indicates that the discussion and the suggestions made therein developed the students’ identities as facilitators.

5.4 More skilled professional and new identity as facilitator
The students experimented with their respective professional organisations of employment in two different ways. First, they tried out Proactive Review, which was new to them as well as to their organisation; second, by doing so they experimented with their roles as competent practitioners in their organisations as well as their new roles as facilitators.

The students discussed their new practices of initiating and/or facilitating PRs in their everyday job within their organisations of employment. First, they experimented with Proactive Review; then, they reflected on their role of being a
facilitator. One student realised that he did not prepare adequately with the sponsor, so the sponsor was in doubt about his introduction to the Proactive Review.

The students discussed the importance of good preparation not only for the facilitator but also for the participants and the sponsor.

A student pointed out that the participants, who were her peers in school, did not agree on “proper knowledge”. This disagreement made it more difficult to motivate the colleagues to participate in PRs. The student claimed, “This disagreement upon what is necessary/proper knowledge is a cultural ‘pain’ among high school teachers”.

This reflective quote represents a vital question for knowledge creation and learning to take place, namely, questioning and negotiating the knowledge that we regard as essential and legitimate. The student indicated that there was an ongoing debate of this nature in her professional organisation.

A student realised that it would have been advantageous for the pupils and the process if they (the facilitators) had been better prepared. He said: “It was pleasantly surprising to the participants [of the Proactive Review] that each of them influenced the focus of the meeting. If we [the facilitators] had presented the shape more clearly in the call, maybe more pupils would have participated”.

During the experimentation with Proactive Review in their respective organisations of employment, the students reflected on issues regarding the power-distance among themselves. A student raised concerns about a manager being present in the Proactive Review:

As recommended by Dewey and Boydston (1976), the MIL students experimented with the world as they attempted the Proactive Review. Thereafter, they reflected collaboratively in the Google discussion forum with fellow MIL students and the teacher/researcher. They discussed initial requirements such as “preparation and planning with the sponsor”, as well as the possible negative influence of “powerful people” on the Proactive Review. The online discussion enabled the students to reflect on their new roles as facilitators, and they pinpointed things that a facilitator should be aware of, specifically the importance of preparation with the sponsor and handling power-distance within the group of Proactive Review participants. This way, they obtained insights into their respective organisations of employment (“a cultural pain amongst high school teachers”) and identified requirements for being a facilitator.

The discussions indicated that the students gained new insights into their respective organisations of employment through experimentation and follow-up written reflections in the online community. The reflections on the experimentation indicated that the students became influencers in their professional organisations.

The MIL module enabled the students to experiment with the world through actions and interactions by running a Proactive Review in their professional organisations. They obtained experience, as the MIL course asked them to reflect upon what they tried to do and what happened as a consequence. The utterances in the online community clearly showed what the participants enjoyed or suffered from and thereby indicated that the students actually learned from their experimentation (Dewey & Boydston, 1976). This statement is supported by the fact that the discussions in the online community included questioning, analysing, coming up with
tentative solutions, and reflecting on and evaluating the process of learning, which are the key actions for learning in the context of work, according to Engeström (2001).

The data material were selected and analysed qualitatively based on the specific aspects relevant to our aims. Our first aim was to determine how students became influencers in their organisations of employment by creating new and common meanings of their experiences with Proactive Review in the community of fellow students. This common understanding was based on reflections on the context and the profile of the participants in the Proactive Review. Our second aim was to develop a new identity for students as facilitators who influence learning practices in their respective professional organisations, and, by doing so, enhance their practitioner skills.

6 Contributions - MIL students’ new ways of thinking and agency to become an influencer

Online collaboration via a Google group is an alternative possibility for knowledge sharing among geographically dispersed students who maintain full-time jobs alongside their master’s studies.

Initially, we wanted to investigate how MIL students create new ways of thinking and develop their agency to make changes that practically impact their organisations of employment by utilising Proactive Review. The students invested efforts towards learning in the context of work. These efforts included questioning the seven open questions in the Proactive Review, analysing collaboratively with the participants in the Proactive Review, reflecting on the learning process in the Google group, and evaluating the process of learning with their fellow students in the online community.

By discussing obstacles and enablers for success with their fellow students, they created common and new meanings of the PRs they attempted in their respective organisations of employment. They developed meanings in-progress and became more knowledgeable of their professional roles in their organisations. Each student may be perceived as a more skilled professional in those organisations that accepted and appreciated this attempt.

The students tried out a Proactive Review in their organisations of employment to shape the organisations’ operational space or practices. The Proactive Review enabled the student and his/her colleagues to interact, collaborate, and communicate. The online discussions showed that the students actually became influencers in their professional organisations.

The online discussion enabled the students to reflect on their experiences with Proactive Reviews, and they were brave enough to share contradictions, problems, and individual concerns with their fellow students. The students created new meanings of what it takes to initiate and maintain learning in their professional organisations – even though these organisations were different. Thus, the students created a common understanding of important challenges to developing a new identity as a facilitator and additional potential risks in the development of this role in their respective organisations of employment.
The discussions, suggestions, and tentative solutions indicated that the experimentation and reflection developed the students’ identity as facilitators, leading them to become more skilled professionals. The written reflections and interactions among the students increased during the period of 11 days. The first discussion included 16 comments from the students with an average comment length of 11.3 lines, the second discussion elicited 21 comments from the students with an average comment length of 12.0 lines, and the third discussion generated only 14 comments from the students, but the average contribution length had grown to 13.5 lines. This development indicates that the students became increasingly familiar with collaborative reflections in the written format. In the discussion about preparation, the students often stated their own experience, and only a few students responded to other students’ utterances. However, in the discussion about power-distance, only a few students stated their individual experience; most comments reflected the few initial inputs. The students may have become less reflective of their own experience or more interested in other students’ inputs. If the latter is true, it indicates that the students became more collaborative and interactive.

The discussion showed that the students were more eager to elaborate on “how” rather than “what” to learn in the role of a facilitator; they participated actively as the learning process progressed and enhanced their collaborative reflections in the Google group.

Emotions were only expressed one time by one student, even though other comments included contradictions and problems. The 75 comments and the eagerness to reply (especially in the discussion about power-distance) indicated that the students were involved in reflection. Therefore, the lack of emotional comments is interesting. An explanation may be that the students do not want to appear “emotional”; another explanation could be that the written format slows down spontaneity, and in this process, emotions are developed more consciously, which allows them to be expressed as well-formulated reflections.

The online dialogue showed that the students influenced their practice and developed new ways of thinking about learning in the context of work. Analysis of the utterances indicated that the students became influencers in their professional organisations and enhanced their practitioner skills in terms of being able to facilitate PRs.

7 Conclusion

The research question of this study was: How do master’s students use an educational design for learning in the context of work to create new ways of thinking and develop their agency to make changes that practically impact their organisations of employment? In order to explore the question, we chose the setting to be a module in a master’s study program where the students participated in two human activity systems, as MIL students on the one hand, and as employees in professional organisations on the other hand. Because the students were geographically dispersed, they collaborated online, which made us turn to netnography as the methodology for this study; we also mainly focused on qualitative methods such as discussions in an online discussion forum that is comparable with observation. We analysed the
utterances in the discussion forum in semiotic terms. In earlier studies conducted by Engeström (2001, 2011) in the Change Laboratory, the learners met face-to-face in order to learn. In this study, the emphasis is on tools that consisted of information technology that mediated learning in both activity systems that individual students attended, namely, as students in the MIL course and as employees in a professional organisation. Utilising IT for learning purposes is a new implication for further expansion of elements in Engeström’s model of the human activity system.

The students formulated contradictions and problems. They utilised the online community for questioning, analysing, reflecting on, and evaluating Proactive Review as a process for learning in the context of work. These discussions led to the creation of common meanings, as well as suggestions for tentative solutions. The students formulated and legitimated new forms of thinking and acting to improve their practice in their respective organisations of employment, for example, by asking managers to stay away from the Proactive Review, or suggesting that the sponsor and the facilitator should consider who should participate in a Proactive Review. Furthermore, they shared and created new knowledge about the implications of Proactive Review in regard to its preconditions, the participants, and the roles of the facilitator and sponsor; for example, they suggested starting with an icebreaker or having a clear time frame and agenda.

By experimenting with Proactive Review in their professional organisations, the students created new ways of thinking and developed agency for improving their practices of organisational learning in their respective organisations of employment, which make us regard the students as influencers in their professional organisations.

Through discussions, organisational visits, and written communication, the students reported various examples of learning during the MIL course. They described how they gained knowledge about organisational learning in general, but also how they developed profession-specific knowledge when interacting as part of the Proactive Review process and involved people in their respective organisations of employment. The students commented and reflected on others’ experiences of testing an educational design for organisational learning in their professional work environments. Therefore, they are able to formulate and legitimise new forms of thinking and acting for improving their practices in their respective organisations of employment.

Furthermore, they specified how the discussion with student peers as Proactive Review facilitators was an important part of their learning process. When meeting “the others”, they learned about differences and similarities between the human activity systems. They became familiarised with general professional conditions and how these conditions vary across organisations. Thus, their own situations were clearer in relation to others’ situations. They faced different circumstances, conditions, and approaches – various contexts in which the learning object was tested. During the process, they became influencers in their professional organisations because they described how they solved problems on the fly and created meanings in-progress.

The students developed themselves in many directions during this course. First, they experimented with the world and reflected on their experiences, which enabled them to develop an identity as a facilitator. Second, this experimentation made them approach their respective organisations of employment in a new position
(as a facilitator), thus forcing them to solve problems on the fly and create meanings in-progress in their professions. They changed the practices of organisational learning in their organisations of employment, which had practical impacts. In other words, they became more skilled professionals. Third, reflections in the written format enabled the students to become influencers in their professional organisations, and the developments in the comments indicated that the students progressively became more knowledgeable and capable in this regard.

Based on our results we raise considerations for implications of changing communications from the spoken word to the written word. This was characterised by the lack of spontaneity, by equality between outspoken and silent students in regard to contributions, and by seemingly high levels of reflection, very often “provoked” by fellow students rather than by the teachers.

References


