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Teachers as learners – a qualitative exploration of pre-service and in-service teachers' continuous learning community

OpenDigi

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ABSTRACT

This study explores pre-service and in-service teachers' experiences in working as a learning community. Pre-service teachers (N = 60) and teacher educators (N = 9) from a Finnish university and in-service teachers (N = 27) from four local comprehensive schools worked together over six months. The teachers-as-learners continuous learning model was created and implemented in practice. The participants' written reflections were collected to explore what they learned, what challenges they experienced and how they would further develop the model. The results showed that the pre-service and the in-service teachers reflected on their work somewhat differently. The former experienced learning group working, self-regulation, and pedagogic and didactic skills. The latter learned group working skills and new teaching methods. Both groups of teachers experienced challenges, one of which was named role confusion. The pre-service teachers experienced role confusion in terms of guided versus independent work. The in-service teachers' role confusion led them to wonder whether they should provide the pre-service teachers with expert support or participate as equal group members. Both pre-service and in-service teachers reflected that the model would require active involvement of all teachers and teacher educators involved. The results provide implications for pre-service and in-service teacher education.

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Continuous learning; in-service teachers; learning community; pre-service teachers; teacher education

Introduction

There is growing interest in developing teacher education to respond to the needs of 21st-century learning, such as skills in strategic learning, critical thinking and collaboration (Binkley et al. 2012). These skills are important, not only to enable pre-service teachers to study and work in their learning and working communities, but should also be enhanced for their prospective pupils' learning (Kramarski and Kohen 2017). Another current aim in teacher education is to provide better opportunities for pre-service and in-service teachers, as well as teacher educators, to create collaborative learning communities in support of teachers' continuous professional development (Harlow and Cobb 2014). The concept of continuous learning is not new, but it is newly important in representing

a lifelong learning ideology and combining formal and informal educational opportunities. While educational political discussions about continuous learning have been active, minor attempts have been made to develop pre-service and in-service teacher education practices accordingly.

Teachers and teacher education are in a key position to educate young citizens. If they model active learning (Prince 2004), including self-regulated and collaborative learning, as their own approaches to learning, they are also more likely to apply such approaches to their teaching (Dembo 2001; Häkkinen et al. 2017, 2019; Kramarski and Kohen 2017). It is often assumed that when teacher education students graduate, they are able to practise active, self-regulated and collaborative learning as a central component of their teaching practices almost naturally (Häkkinen et al. 2017). However, research has shown that active learning skills are not a central aspect of teacher education (Yuan and Lee 2015). Many teacher education students are still the products of a teacher-led traditional school culture where students are less active and knowledge acquisition skills are mainly emphasised. In this paper, it is argued that pre-service and in-service teachers need support in adopting ideas on active learning, similar to their need for support in adopting any other pedagogic principles and practices.

There is a lack of studies that target how active learning and self-regulated learning (SRL) could be made more visible in teacher education practices and ways of organising collaboration between pre-service and in-service teachers (Geeraerts, Tynjälä, and Heikkinen 2018; Kyndt et al. 2016). This article responds to this challenge by presenting a qualitative case study of teachers as learners in a continuous learning community. The study illustrates how the teachers' learning community was created and describes how pre-service and in-service teachers experienced working and learning in such a community.

Theoretical framework

Self-regulated learning as a theoretical conceptualisation for active and continuous learning

Continuous learning considers individuals as self-regulated and pro-active agents who perceive self-development as a fundamental part of their own lives. Naturally, continuous learning can partly be formal education in institutions, with diplomas and study credits, but more often, it is regarded as an attitude in life and a system of informal learning (Richter et al. 2011). In turn, active learning is a combination of will, skill and understanding to self-direct and guide a person's own learning and working in pedagogic contexts (Drew and Mackie 2011; Prince 2004). Continuous and active learning can thus be viewed under the theoretical conceptualisation of SRL. By definition, SRL views learning as an active process where learners set their own goals, monitor their own progress towards the goals and make changes when needed, either by reformulating the goals or by using learning strategies (Pintrich 2000; Schunk and Greene 2017; Zimmerman 2000). In the SRL theory, motivation and cognitive learning strategies are not perceived as learner traits but emphasised as part of a dynamic and contextually bound process that can be learned and brought under the learners' control (Zimmerman 2000). Previous studies have shown that actively self-regulating pre-service teachers use a wide variety of activities in their learning (Vermunt and Endedijk 2011). For example, active regulators

reflect more deeply on the learning process, set goals and plans for learning and acknowledge their own active role in the process (Endedijk et al. 2012).

In this paper, it is argued that to realise the opportunities for continuous learning, learners need to have a set of learning skills to be actively in control of their own learning process, as well as the will to make use of those skills and learning opportunities. In other words, the skill and the will to engage in active SRL set the stage for continuous learning. Therefore, to enhance continuous learning opportunities in the teacher education context, it is essential to characterise pre-service and in-service teachers as self-regulated learners (Dembo 2001; Endedijk et al. 2012; Kramarski and Kohen 2017; Randi 2004).

Teacher community as an arena for practising active and continuous learning

Everyday school working environments are regarded as important informal contexts for teachers' learning and professional development (Grosemans et al. 2015; Hoekstra et al. 2009; Kyndt et al. 2016; Richter et al. 2011). In these communities, teachers can discuss and collaborate by sharing information, knowledge and experiences; providing and receiving advice and help; and observing, reflecting on, modelling and adjusting their learning and working practices accordingly (Geeraerts, Tynjälä, and Heikkinen 2018). Kyndt et al. (2016) characterise the following typology of informal activities as continuous learning opportunities: interacting and discussing with others, learning from others, reflecting in/on action, experimenting, engaging in extracurricular activities and searching for solutions to encountered difficulties. All these everyday activities provide opportunities for teacher collaboration and building up professional learning communities.

There is no universal definition of professional learning communities, but there is a broad consensus to view such communities as a group of people sharing and critically observing their practices in growth-promoting ways (Mitchell and Sackney 2000; Stoll et al. 2006; Toole and Louis 2002). For example, Hord (1997) describes the goals of professional learning communities as enhancing professionals' effectiveness for the students' benefit. His definition considers the role of the communities as continuous inquiry and improvement drawing attention to the potential that a group of people working together can mutually enhance each other's and students' learning as well as school development (Stoll et al. 2006).

Berliner's (2001) model for teacher professional development is useful in exploring continuous learning opportunities in teaching practices. Based on studies about the differences between expert and novice teachers, this model points out that the strategies and the habits of expert teachers differ from those of less experienced teachers. According to Berliner (2001), a teacher progresses from 'novice' via 'advanced beginner' to 'competent' and reaches higher levels of expertise when developing a holistic perception of teaching situations at the level of a 'proficient' teacher. The final stage of teacher development is the level of an 'expert', where the teacher masters not only extensive and sophisticated knowledge of the subject matter to be taught but also knowledge of teaching, as well as acquires skills to learn different things from both more experienced and less experienced teachers (Geeraerts, Tynjälä, and Heikkinen 2018). For example, Geeraerts, Tynjälä, and Heikkinen (2018) studied how and what teachers learned from their older and younger colleagues. The teachers reported learning innovative teaching methods and information and communication

technology (ICT) skills from their younger colleagues, whereas classroom management skills and community building were mentioned as learned mainly from their older colleagues (Geeraerts, Tynjälä, and Heikkinen 2018). However, attitudes and ways of being a teacher were learned equally from younger and older colleagues.

The current research literature and teacher education practices implement different terminology to refer to in-service teachers' and pre-service teachers' learning communities. Whereas in-service teachers' communities are more often described as professional learning communities, pre-service teachers' community learning opportunities are developed, for example, as a part of their teaching practicum and mentoring programmes. However, previous studies have indicated that teachers may benefit from working together with teachers from various career levels (including pre-service teachers and teacher educators). Therefore, one of the main ideas in this paper is to create learning communities for pre- and in-service teachers to learn from and with each other.

Aim and research questions

This study aims to explore how teacher education can be developed by creating a continuous learning model that supports pre-service and in-service teachers as active, self-regulated and collaborative learners. The research questions are as follows:

What did pre-service and in-service teachers learn when working as a learning community?

What challenges did pre-service and in-service teachers experience during their work?

How would pre-service and in-service teachers further develop the continuous learning model OpenDigi?

Methods

Participants and procedure

This study is part of the Finnish Ministry of Education and Culture developmental project where a continuous learning model (OpenDigi) was created and implemented in practice with pre-service and in-service teachers. The acronym OpenDigi comes from the project's Finnish name, translated as 'Teachers in a learning community for learning skills and digital pedagogical skills'. The aim was to provide an opportunity for pre-service and in-service teachers to work together and learn from each other. The participants comprised pre-service teachers ($N = 60$) and teacher educators ($N = 9$) from a Finnish university and in-service teachers ($N = 27$) from four local comprehensive schools (Table 1). In the Finnish context, a comprehensive schooling includes teaching primary school (grades 1–6) and upper comprehensive school (grades 7–9). Teacher education students graduate either as

Table 1. The number of pre-service and in-service teachers in the continuous learning community.

	Community 1	Community 2	Community 3	All
In-service teachers (primary school)	10	8	9	27
Pre-service teachers	20	20	20	60
Teacher educators	3	3	3	9
Number of groups	6	3	4	13
Number of groups' projects	12	8	7	27

primary school teachers or, for teaching in upper comprehensive schools, as subject teachers. For reasons of clarity, we have used both terms in this article since the in-service teachers in this study were primary school teachers in comprehensive schools. The pre-service teachers were at the second year of their teacher education studies. They did not have experience of practising as a classroom teacher. Only a few had worked in schools as assistant teachers before or during their studies, but they had not done their first teacher education practice period.

Teacher education in Finland

Teacher education students in Finland study a 5-year master's degree in education. The master's degree certifies that they can work as primary-school classroom teachers in first through sixth grades (students aged 6–12 years). In practice, teacher education in Finland comprises two degrees: Bachelor of Arts (Education), 180 ECTS credits, and Master of Arts (Education), 120 ECTS credits. The bachelor's degree includes the first three years of education. All teacher-education programmes contain the following study units: communication studies and orientation, basic studies of education, intermediate studies of education, multidisciplinary studies in subjects, advanced studies in education, and minor subject studies.

Teaching and learning methods within Finnish teacher-education programmes vary from large auditorium lectures to working in small groups and individually. Programmes include self-study courses, written exams, and portfolio assignments. Face-to-face learning, as well as online and blended learning environments, are all used in Finnish teacher-education programmes. The teacher education studies also include teacher training at university training school. Teacher training systems have been regarded as a very beneficial for pre-service teachers' pedagogical skill development as well as their teacher identity formation. However, the system has also been criticised for not giving a realistic view of the teaching profession and ordinary school life. Therefore, some recommendations have been made to create opportunities to practise in local schools, in addition to teacher training schools.

Case study description: OpenDigi – continuous learning community

The participants of this case study (pre-service teachers, in-service teachers and teacher educators) worked together as a learning community over six months. The main goal of their working was to engage to group work in order to learn from each other and to support one another. In practice, they worked together to develop a project where they plan and implement lessons for pupils in real school practices.

Groups comprised pre- and in-service teachers and they followed a specific working structure, which was named the OpenDigi model. The work of each group was divided to five tasks, which included 1) initial seminar, 2) a shared goal formulation for the developmental project, 3) planning the project for school practice, 4) project implementation in real school life and 5) the project's outcomes presentation in the final seminar (Figure 1). The group work started in the initial seminar where all participants gathered to build their identity of being part of a continuous learning community. The second phase of the group work focused on defining the common goal for development. The task included reading

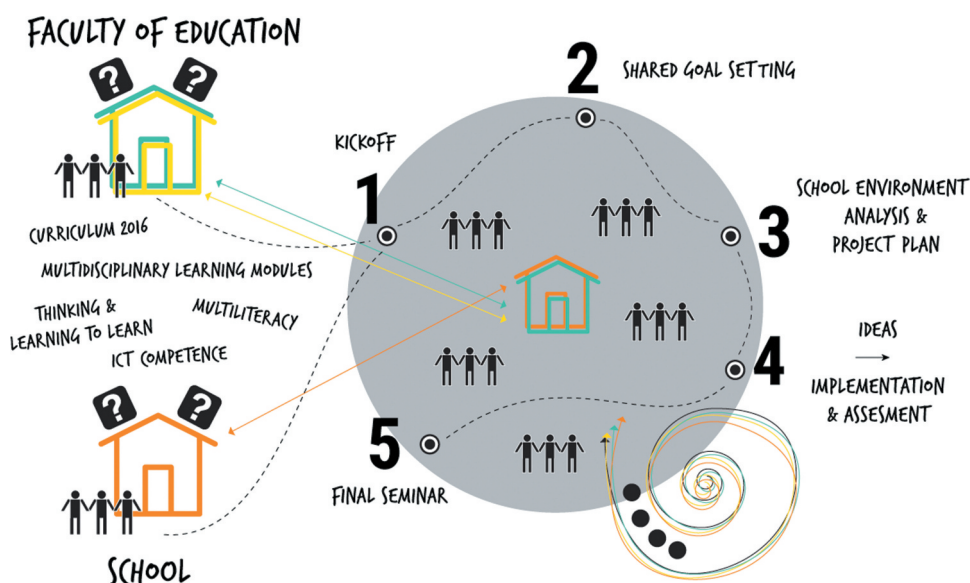


Figure 1. Model for pre-service and in-service teachers' continuous learning community.

selected parts of the Finnish core curriculum for comprehensive schools. The pre-service teachers reflected on their previous studies and formulated ten principles of good learning. The in-service teachers constructed a shared understanding of what goals of the curriculum were challenging in their schools' practices. During the third phase, the in-service and the pre-service teachers worked together to compare how the identified challenges and good learning principles could be integrated and what kind of common goal could be pursued by the community for the project. The community was here split into development groups, each comprising one to two teachers and four to eight student teachers. The decision to engage working in smaller working groups was to provide better conditions for everyone to active participation, since a large community can be challenging when the task is to plan and conduct new types of activities. The decision for small groups was practice based, but relied also on the studies of group interaction and collaborative learning (Häkkinen et al. 2017; Näykki et al. 2014). After the community's common development goal was set, each group created its own question and plans for the two practical implementations (the goal and recommended solution) in schools (Figure 2). The groups themselves defined a specific theme that they wanted to enhance during their lessons, for example pupils' learning skills, self-directed learning and inquiry-based learning. Groups had the freedom to decide how often they wanted to meet, whether they would meet face-to-face, or whether they would work together remotely using technological tools and environments. In the final seminar, the groups presented their developmental projects' implementations.

Data collection and analysis

This qualitative study focused on the participants' (N = 60 pre-service teachers, N = 27 primary school teachers) views about and experiences in participating in a continuous learning community. The data were collected from the completed open-ended questionnaires with

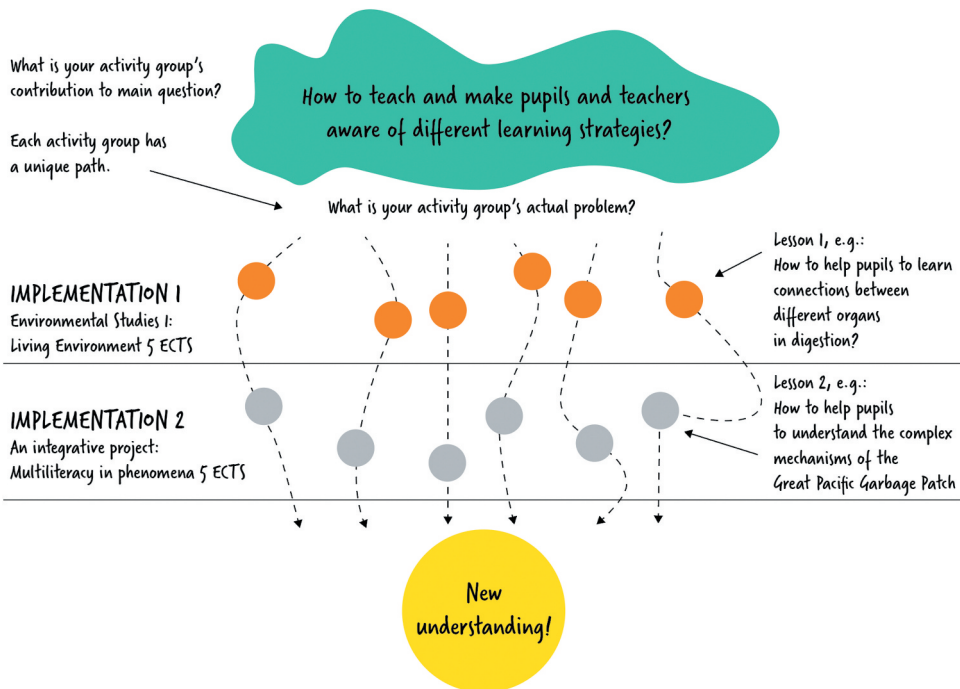


Figure 2. Example of the developmental project.

the questions listed here below. The questions asked the participants to reflect 1. How did you experience working as a continuous learning community? 2. How did your group perform? 3. Describe your group's teaching experiment in practice. 4. How was the active learning principles (i.e. will and skill to guide oneself that leads to transformation of pedagogical behaviour and thinking) present in your group's working? 5. Did your group experience challenges; if yes, what kinds of challenges you experienced? 6. How did you overcome the challenges? 7. Did you get help when it was needed? 8. How would you develop the experienced continuous learning model further?

The open-ended questionnaire was selected as a form of a data collection method to capture participants' experiences after working together over six months period (Schwarz and Oyserman 2001; Schuman and Presser 1979; Tourangeau et al. 2016). This is because we wanted to provide them time to reflect on their interpretations and not, for example, to interfere with them while working. In other words, it was not the focus of this study to explore their on-going working processes in detail. The pre-service teachers (in their small groups, $N = 21$ groups) responded collectively to the questionnaire, and the in-service teachers responded individually. Permission for the data collection was obtained from the participants, as well as from the faculty dean and the school principals, according to the official guidelines in the Finnish context.

A data-driven content analysis was conducted (Coffey and Atkinson 1996; Hsieh and Shannon 2005). In practice, all the written responses to the open-ended questionnaire were moved to the analysis programme nVivo. The first phase of the analysis involved careful reading and taking notes (Hickey and Kipping 1996). Next, the authors discussed the data

Table 2. Overview of the themes and sub-themes.

Theme	Sub-themes	f
Learning experiences	School practices and classroom instructions	21
	Pedagogical and didactical skills and new teaching methods	18
	Group working skills	17
	Self-regulated learning skills	10
Challenge experiences	Lack of collaboration between pre- and in-service teachers	15
	High demand of resources and long distance to a partner school	15
	Unclear instructions and working goals	8
	Group coordination and issues related to own responsibilities	6
Development ideas	Active involvement from all the participants	19
	Better instructions and working goals	15
	Time for constructing shared understanding	9
	Shorter distance to a partner school	7

and the preliminary findings based on their readings. After the discussions, the first and the second authors decided on the focus of the analysis. The data were then divided with the help of nVivo analysis programme into the following main themes of the analysis: 1) overall experiences, 2) learning experiences, 3) experiences in the challenges and 4) ideas for the development (of the continuous learning community). This means that every time a text included a description of these named themes that part of the text was coded to the specific theme. In a next phase, the coded text parts were further analysed to explore in more detail what sub-themes were occurring. After that, the sub-themes were named, counted, read through and examples were selected to be presented in the article.

The following sub-themes were recognised (see Table 2). 1. What did pre-service and in-service teachers learn when working as a learning community? a) School practices and classroom instructions ($f = 21$), b) pedagogical and didactical skills and new teaching methods ($f = 18$), c) group working skills ($f = 17$) and d) self-regulated learning skills ($f = 10$). 2. What type of challenges did pre-service and in-service teachers experience during their work? a) Lack of collaboration between pre- and in-service teachers ($f = 15$), b) lack of time, high demand of resources and long distance to a partner school ($f = 15$), c) unclear instructions and working goals ($f = 8$), d) group coordination issues and issues related to own responsibilities ($f = 6$). 3. How would pre-service and in-service teachers further develop the continuous learning model OpenDigi? a) Active involvement from all the participants ($f = 19$), b) better instructions and working goals ($f = 15$), c) time for constructing shared understanding ($f = 9$), d) shorter distance to a partner school ($f = 7$).

The authors decided to present the pre-service and the in-service teachers' voices in parallel in the Results section to show how they experienced the teachers-as-learners model. Below, each research question is answered with examples from the data.

Results

What did pre-service and in-service teachers learn when working as a learning community?

The pre-service teachers stated that it was useful for them to observe and learn about real school practices, to work together with the teachers and the pupils, and to experience and learn about classroom instruction. They reported learning what it meant to work together

with teachers and gained a concrete opportunity to develop themselves as future teachers. This experience was regarded as particularly useful in developing their teacher identity. They highlighted that to participate in the developmental project was an important learning experience and they also valued this as an important tool in developing educational systems.

We learned a lot about the real challenges and problems in schools. It was also great to get to know school practices and to plan and conduct real lessons. We have gained an experience of the working life, and it is important for us as future teachers [Group 11].

We got good experience of working together with more experienced teachers and a concrete chance to develop ourselves as future teachers. We also learned what it meant to work together in a developmental project, and that was very interesting and a unique learning opportunity for us [Group 12].

This experience as a learning community is very important as part of the development of [our] own teacher identity. It was great to have this opportunity before actual teaching practice. In general, this idea is also important in terms of developing education systems [Group 5].

Additionally, the in-service teachers reviewed this experience as supporting their pedagogical development. When asked to think about their learning perspectives and pedagogical practices, they regarded these as very valuable for their own professional development, as well as for the development of their school community.

This experience supported the pedagogical development of our school. This collaborative project kind of forced us to think [of] our own practices from another perspective, which is always a good thing [Teacher 4].

The pre-service teachers described learning about pedagogic and didactic skills and highlighted that this created a good foundation for the future. They learned how to plan and conduct teaching. They thought that the practical experiences were the ones that taught them the most. They were also pleased that it was a group task, since sharing and developing ideas together supported their learning.

Our learning was particularly focused on didactic skills, and we think that we learned a lot for the future. We believe that all of us learned didactic skills and subject-specific content. A classroom teacher said that she hadn't used this teaching method before, and therefore, we think that she also learned. In general, during this project, we learned a lot about planning and conducting teaching. Practical experience taught us the most. It was also nice that the project was undertaken in groups. Different perspectives and working together made this more versatile [Group 12].

The in-service teachers believed that they learned new teaching methods since the ones that the pre-service teachers introduced were new to them, and thus, they gained new ideas for their classroom work.

I learned new things while we planned and conducted this teaching experiment together with the students. These methods were totally new to me [Teacher 4].

The pre-service and the in-service teachers described learning group working skills and the pre-service teachers in particular identified many practical points of importance for well-functioning group work, such as *sharing the responsibilities, making the timetable and setting their work goals*. They also realised that their lesson plans could be developed

further during the process. An active attitude was regarded as an important asset for the group work.

We learned a lot about working together, how to share responsibilities, how to do a timetable and how to set shared goals. We were active, and we noticed everyone's opinions, and we understood that we could always develop our plans further [Group 11].

The in-service teachers also reported that they learned group working skills. They reflected that all the group members had the will to learn new things together and be active members. They also elaborated on a positive experience in working in a distant team. The opportunities to concentrate and to think carefully before their joint work were valuable.

I felt that all my group members had the will to learn, to understand and to develop something new, as well as to succeed in our goals. This guided us to search for information and to be active group members. The dialogue functioned well in our group; we were interested about each other's perspectives and ideas. When we were working at a distance, we could also get to know the different materials more deeply and to think about questions at our own pace, and then to share the ideas and to continue to work around them [Teacher 3].

The pre-service teachers described the project as a good learning experience of SRL. They compared it with their previous learning experiences in teacher education, which had been very structured, where everything had been prepared for them. They also recognised the challenge of continuing a similar practice in their own teaching work. They further described teacher education as highly focussed on content-specific skills, whereas the real teaching work in primary schools would need combined knowledge of content and of motivation and classroom management.

It was good to practise self-regulated learning and to notice how challenging it actually was. We have been used to the teacher education programme where we receive everything as ready, so it is challenging not to continue a similar practice in our teaching work. It is very important to notice that the teacher education studies are very much concentrated on content-specific topics, whereas in the real school environment and teachers' work, content is not separated from topics such as motivation and classroom management [Group 1].

It can be concluded that the participants learned group working skills, pedagogic and didactic skills and new teaching methods. The pre-service teachers mentioned that they also learned school practices, developed a teacher identity, gained teaching skills and learned content-related issues. Furthermore, they highlighted that they learned to be more active, practice self-regulation and take more responsibility for their own learning and working.

What challenges did pre-service and in-service teachers experience during their work?

The pre-service and the in-service teachers experienced both similar and different types of challenges during work. Overall, the pre-service teachers described the challenges more broadly than the in-service teachers did. The similarities were related to how they viewed their own and the others' participation during their work. Several practical issues were named as a challenge for the participants, such as lack of time.

Our group functioned quite well. The biggest challenge probably was that we had a very busy autumn and we could not find enough time to concentrate on this project [Group 12].

Groups experienced the collaboration as functioning well among pre-service or in-service teachers, but it was lacking between the two groups.

The teacher's role was actually quite minimal since we noticed that it was easier if we planned the project among us student teachers and we asked for help and guidance from the teacher if it was needed [Group 12].

The in-service teachers also described the level of participation as a challenge but explained it as role confusion. They pointed out equal collaboration between pre-service and in-service teachers as not easy because of their different developmental levels as professional teachers. The in-service teachers also viewed the experience in such a way that their different levels of experience and positions as either 'students' or 'teachers' prevented them from experiencing true collaboration. They were not equally participating as they experienced their role in guiding students' teaching practice.

Teachers with a long working history and young students are at very different levels of their teacher identity. So that is a reason why this co-creation did not work further from the written goals. We teachers experienced our role as practice guidance. We of course shared the same vision of the goals, but we were more givers than receivers, and it remained unclear what the overall purpose of it all was [Teacher 2].

Furthermore, the pre-service teachers explained that the challenges were related to the social organisation within the group and to coordination issues, such as time management, practical arrangements of the group meetings and task understanding.

The challenges that we experienced were related to time management. We could overcome time management issues by dividing tasks according to each member's possibility to contribute during the specific time. We also met face to face to assure that different pieces of the project would eventually form a logical whole [Group 11].

According to feedback from pre-service teachers, the instructions they were given were not clear enough and so they felt they were struggling, particularly at the beginning of their project work.

We felt that the main ideas of the project were missing quite a long time. At least it was not opened up with us. The instructions could have been more clear and simpler. We did not really know at the beginning what we were supposed to do [Group 14].

The pre-service teachers reflected that working as a group demanded a lot of skills in taking the responsibility themselves. Student teachers viewed this as very frustrating and felt disappointed because the teachers did not support their work as much as they hoped:

To be honest, the process was extremely frustrating. I felt like the teachers were just sitting there, waiting for us to tell them what was happening. My group was just sitting back, and so, I was forced to take the lead to have something happen [Group 3].

The pre-service teachers recognised that it was challenging for them when the group members' participation was unequal:

Some challenges in the groups were created due to unequal participation among the group members. That was partly because our roles changed when the project proceeded. For example,

brainstorming was an equal responsibility of us all, but after that, some focused more on searching for information, some took notes and some solved practical problems [Group 1].

Overall, the pre-service teachers described their challenges more thoroughly than the in-service teachers. The pre-service teachers identified the following challenges related to their group work: unequal participation, self-coordinating their group work, time management and different understanding of the task. Furthermore, they described the need for taking responsibility for the group work as highly challenging and frustrating. The in-service teachers described role confusion as a challenge: they did not perceive their role very clearly and wondered whether they were guiding the students' teaching practice or were equal members of the group. Some examples of the phrases that the in-service teachers used about unequal participation were as follows: different phase of teacher development, different position as a teacher and role as a giver or a receiver. These were possible reasons why the learning community sometimes lacked equal and active work between the pre-service and the in-service teachers.

How would pre-service and in-service teachers develop the continuous learning model?

The pre-service and the in-service teachers provided ideas for further developing the continuous learning model and concentrated on describing how they wished that all participants would actively engage in the model enactment. The pre-service teachers wanted the in-service teachers to be more actively involved in the process. They hoped that the in-service teachers would show interest, ask questions and guide them more actively. The pre-service teachers also desired that the teacher educators would encourage them to try new things and bring their own knowledge to the group:

It would be important that the school teachers would be more actively involved and would also show their interest by asking questions and guiding [us]. It would be good if they would also think with us how these topics could be implemented in school practices [Group 7].

Teachers in teacher education should bring their own knowledge and skills to students, and they should help us with our plans. In a way, I think that they could work more equally as members of the group, give us space and encourage us to try new things. They should not be barriers to creativity [Group 9].

The in-service teachers wished that they would have time to discuss and form a shared understanding with the pre-service teachers, for example, about their perceptions of learning. The in-service teachers also described how important it would be for all (including themselves) to participate in this co-creation process actively:

It would be important if teachers and students could open up [their] learning perceptions more deeply and discuss about these. This short experiment will not greatly transform thinking. This is a small piece, and so it needs to be thought [over] [Teacher 4].

All would be active learners; they would encourage, inspire and support [one another] to make the co-creation possible [Teacher 3].

The pre-service teachers described what they expected from themselves and their fellow students as active partners in continuous learning communities. They explained their

goals as follows: they should be more active participants who would organise their own time so that they would have time to work together. They also highlighted the importance of motivation and engagement in working as self-directed and self-regulated learners who would be goal directed and would aim for continuous development:

The students should be self-directed and self-regulated learners who actively participate in the community. They would also aim to develop themselves as learners and as future teachers [Group 9].

The pre-service teachers also described practical issues, such as better instructions and working goals as well as a shorter distance to a partner school that would have supported the model enactment:

It would be great if all participants and schools would be from the same city and all would have enough time to contribute on this project. All the meetings should be organized within the teaching hours so no one need to use their free time for this [Group 12].

To conclude, the participants emphasised active participation of all as a way of further developing the model. The pre-service teachers stated that they hoped for more support and active participation from the in-service teachers. It would be important for the in-service teachers (also the teacher educators) to share their knowledge and skills, as well as work together as equal group members. They wished for more active involvement from themselves and their fellow students. They identified the need to be more self-regulated learners who would organise their own time for working and aim for self-development. The in-service teachers also recognised the need to be active members of the learning community and invest time in discussing their views and forming a shared understanding with the pre-service teachers.

Discussion

This study elaborated pre-service and in-service teachers' experiences in working as a learning community. The main outcomes of this study showed that pre-service and in-service teachers viewed such experiences as beneficial for their learning. However, this positive reflection was not shared by all; some participants felt that their work partly lacked so-called true collaboration. The in-service teachers experienced their inability to transform their role from supervisors of student teachers to collaborators who would engage as equal members in a learning community. The pre-service teachers explained that it was easier for them not to involve in-service teachers as part of the community but to ask guidance from them only when it was needed. Similarly, the in-service teachers explained that it was challenging for them to participate due to their different position in their professional development compared to the pre-service teachers. Prior research showed similar findings; the true learning communities were challenging to form (Harlow and Cobb 2014; Stoll et al. 2006) because cultures and practices in educational institutions had been developed in such a way that the more experienced guided the less experienced (Berliner 2001; Geeraerts, Tynjälä, and Heikkinen 2018; Izadinia 2015). The prior research has indicated that power relationships in educational institutions are one way to explain the unbalanced or unequal participation among pre- and in-service teachers (Andrews and Lewis 2007; Coleman and Voronov 2003). It is possible that

power relationships are present in participants' ways of working together. Thus, if so-called true collaboration could be achieved, attention should be paid to the ever-present nature of power within the complex power-dynamics of teacher education. Power is present, but often hidden in complex networks of relationships and structures, and becomes visible as thoughts, words and deeds of participants in communities and groups (Coleman and Voronov 2003; Hardy and Phillips 1998). Therefore, it needs to be acknowledged that power may restrict reciprocal and equal participation in group work.

Despite the challenges of participation, both groups of teachers described having learned new things during the initiative and from each other. This study enabled the pre-service teachers to learn about school practices and group working skills, to develop their own teacher identity and teaching skills, as well as deal with content-related issues. The in-service teachers also explained that they learned new teaching methods, content and skills to work as a group. This initiative also allowed the in-service teachers to start and deepen their discussions about their schools' development. This study's results are in line with Geeraerts, Tynjälä, and Heikkinen (2018) findings that teachers with less experience and with more experience could learn from each other but often learned different things. Similarly, our study shows that the more experienced teachers learned new and innovative teaching methods from less experienced teachers. Furthermore, Geeraerts, Tynjälä, and Heikkinen (2018) study found that classroom management skills were more often learned from more experienced teachers. Likewise, in our study, the pre-service teachers described learning classroom and school practices from the more experienced in-service teachers.

One important aspect that the pre-service teachers learned was SRL (Kramarski and Kohen 2017; Niemi and Nevgi 2014; O'Grady, Mooney Simmie, and Kennedy 2013), which they described as challenging for them. Taking more responsibility for their own learning and working was something that they did not experience from their previous educational practices and was thus experienced as frustrating from time to time. In this study, it is argued that for teachers to be able to support self-regulated learners, they themselves need experiences in regulating their own learning and working (Häkkinen et al. 2019; Kramarski and Kohen 2017).

Taking a different kind of responsibility was also challenging for the in-service teachers, as they described having experienced role confusion and not knowing how they were expected to participate in the collaborative learning process. They could not transform their previous experience from supervisors of student teachers to collaborators, and group work was sometimes mistakenly regarded as guiding teaching practice. It can be concluded that previous experiences naturally guide people's behaviour in different situations; thus, work practices and cultures are difficult to change (Grosemans et al. 2015). Therefore, more emphasis should be placed on how previous experiences can be transformed as new assets for working together with people who have either less or more, and different kinds of experiences.

Interestingly, when the participants were asked how they would further develop this model, all of them requested more active engagement from all: from themselves, as well as from other participants (Niemi and Nevgi 2014; O'Grady, Mooney Simmie, and Kennedy 2013). The question remains: 'How can this active engagement be enhanced and supported during the learning and working process?' In this study, it is argued that teacher development does not occur solely in formal professional development activities; rather, there are many potential spaces for learning in daily practices and discussions among colleagues with various previous experiences (Grosemans et al. 2015). Furthermore, the development of

professional attitudes and professional identity is a lifelong process that is reciprocally influenced by older and younger generations (Beltman et al. 2015; Geeraerts, Tynjälä, and Heikkinen 2018). This means that both parties learn from each other about the fundamental question, 'Who am I as a teacher?' (Gallchóir, O'Flaherty, and Hinchion 2018; Timoštšuk and Ugaste 2010). Our findings confirm identity construction as a strongly social process (Harlow and Cobb 2014; Izadinia 2015). This means that an individual's identity is positioned against those of others. This is visible in this study, with the in-service teachers positioning themselves as 'us' at different stages of 'our' developmental process compared to the pre-service teachers. A similar type of positioning is visible in the pre-service teachers' reflections on themselves as students who can ask for support from the teacher. Issues of power between the different groups in the community are emerging here and it requires further exploration among communities of learners in educational institutions.

We acknowledge the limitations of this study. We implemented an open-ended questionnaire as an instrument in a data collection. This was because our aim was to capture participants' experiences after working together over six months period. We wanted to provide some time for them to reflect on their interpretations and therefore we did not, for example, apply process-oriented approaches that would have targeted what was happening within group interactions. However, in future studies the process-oriented approach and more versatile data collection methods could be implemented to complement participants' experiences and interpretations with a real interaction processes to draw a more comprehensive picture of pre- and in-service teachers collaborative communities. In this study, pre- and in-service teacher groups had the freedom to decide how often they wanted to meet, whether they met face-to-face or whether they worked together using technological tools and environments. In other words, this was planned and organised by themselves. When and how the groups met is naturally one important aspect that future studies could consider further, and thus the lack of this information is regarded as a limitation in this study.

It is argued that both pre-service and in-service teachers should be provided with opportunities for versatile learning experiences to engage in learning communities that include participants at various stages of their teaching careers. This has at least two benefits: first, it affords natural opportunities for teacher educators and in-service teachers to practise continuous learning; second, this makes continuous and active learning more visible for current and future teachers (Berliner 2001; Geeraerts, Tynjälä, and Heikkinen 2018). Thus, the opportunities should be better utilised in teachers' professional development and in teacher education programmes (Beijaard, Meijer, and Verloop 2004; Yuan and Lee 2015). Teacher educators were regarded as important participants in this study. However, we did not succeed in collecting their experiences as an empirical data set. Therefore, this study concludes by challenging future research to explore how true learning communities among pre-service and in-service teachers could be created and supported, as well as how teacher educators could also be active members of such communities. Further research is needed to explore different teacher groups' reflections of working together as a learning community and to foster teachers' continuous learning and professional development.

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