

Teachers' and School Leaders' Perceptions of Further Education and Learning in School

May Britt Postholm*, Klara Rokkones

Programme for Teacher Education, Norwegian University of Science and Technology, Trondheim, Norway

Email: *may.britt.postholm@ntnu.no, klara.rokkones@plu.ntnu.no

Received 14 August 2015; accepted 27 December 2015; published 30 December 2015

Copyright © 2015 by authors and Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

This article focuses on further education of teachers and the importance of the relationship between further education and the visions and development strategies of schools. The study shows that if further education is to contribute to change and development in schools beyond what individual teachers learn, the school has to be organized as a learning community. This means that the school must have a vision. This in turn demands that schools are led in a manner that allocates arenas and room for communication where visions and targets can be formulated and understood through common dialogue.

Keywords

Further Education, Learning in School, Learning Community, Qualitative Method

1. Introduction

Norway is putting much effort into the further education¹ of teachers and White Paper No. 31 *Kvalitetiskolen* [Quality in school] (2007-2008) describes a permanent system for further education (Ministry of Education and Research, 2008a). The aim of course is to strengthen the quality of school. It was decided that further education could amount to up to 60 study credits in each subject, and the studies offered had to be on the college and university levels. The further education would also be focused on teachers as professionals, providing solid subject and teaching competence. It is stated that the programmes should be focused to a significant degree on practice

*Corresponding author.

¹Further education is here referred to as formal education giving credits.

by connecting teachers' practice arena as closely as possible to the studies and using this as a trial arena for reflections on the studies (Ministry of Education and Research, 2008b).

This article focuses on upper secondary schools and the importance of linking further education to the visions and development strategies of the schools. We focus on the role of school leaders when it comes to facilitating for the competence-raising of teachers through further education. In the study this article builds on, our aim was to gain insight into what happens in the schools one year after the further education had been completed. The teachers who participated in the study have taken further education in the vocational programme subjects Restaurant and Food Processing (RF) and Technical and Industrial Production (TIP). The following research question was the point of departure for the study: *How do teachers and school leaders experience the importance of further education for raising the competence for all teachers at the school and for teachers' personal learning one year after completion of the education?* The main purpose of the research was thus to understand the school leaders' and the teachers' perceptions of the situation *in school* on year *after* teachers' participation in further education at teacher colleges.

We will begin by presenting previous research and the theoretical framework for the study. Then we will describe the informants in the study and explain how the data material was collected and analysed. The article concludes with a discussion on learning in school.

2. Previous Research and the Theoretical Framework

2.1. Previous Research

According to Lieberman and Pointer Mace (2008), teachers are the most important actors in school when it comes to what pupils learn. They add that teachers' learning has often been forgotten or neglected in relation to changes of teaching practice. Their argument is that if teachers' learning is emphasized it could lead to the improvement of their teaching practice and thus the pupils' learning. Beijaard, Korthagen and Verloop (2007) state that there is little research on *how* teachers learn and that this has led researchers to study teachers' learning, mostly in terms of how teachers learn *in practice*, and not on how participation in further education outside their own school has had an impact on their learning and professional practice. Within the framework of the research question this article also attempts to ascertain what many recent research studies have pointed out and that is the extent to which teacher cooperation *in school* is important for teachers' learning (Given et al., 2010; Glazier, 2009; Lawrence & Chong, 2010; Levine & Marcus, 2010; Meirink, Meijer, & Verloop, 2009; Vescio, Ross, & Adams, 2008; Zwart, Wubbels, Bergen, & Bolhuis, 2009). The findings in these studies suggest that teacher cooperation also should be a key element in their work in further education courses in colleges and universities. This means that several teachers from the same school should participate so that there can be local cooperation between the course sessions.

A study conducted by Buczynski and Hansen (2010) shows that the best pupil results are achieved when several teachers from the same school participate in further education together. Their study dealt with giving courses to teachers outside their own school, and it shows that cooperation between teachers is important if teachers are to reflect upon their own learning and develop together. In their study of courses given to 118 teachers of mathematics and natural science, the researchers found that the teachers' learning also had impact on the pupils' learning. The course these teachers took had 80 teaching hours and took a year, with a summer course prior to the start of school and Saturdays in the course of the school year. The content of the course included exploratory teaching as a method, subject knowledge for the two subjects in question and formative assessment. Teachers from two districts participated, and the pupils in one of these districts performed better in tests on the district level, while the pupil results in the second district were on the same level as earlier. This finding was related to precisely teacher participation and that participation by several teachers from the same school leads to the best pupil results.

The TALIS survey (OECD, 2009) quotes Norwegian participants as stating that qualification programmes and research activities have had the greatest impact on their academic development. However, the study shows that Norwegian teachers participate only to a little degree in research and development activities (R&D) in their further education. The Scottish school researchers McMahon, Reeves, Devlin, Simpson and Jaap (2007) point out that further education with practice-focused research activity and content that integrates the implementation of

action research within one's own teaching appears to be particularly fertile². The stronger approach to research also gave the participants knowledge about more general education questions, according to the Scottish researchers. These researchers also underline that the further education modules or practice-focused research activities have particularly been important for the development of the classroom practices of the teachers. The fact that the further education is so closely related to and relevant for one's professional working day is precisely what makes these teachers see the time invested as time well spent. This also supports the study by [Parise & Spillane \(2010\)](#), which shows that teachers appreciate formal further education if it can be directly linked to their teaching in school.

In an evaluation of the national strategy for further education, carried out in 2012 ([Oxford Research](#)), school leaders and teachers were asked how they experienced the relevance of the further education. The evaluation shows that 40 per cent of school leaders in vocational programmes think that the further education programmes do not satisfy the needs the schools have for further education. However, the majority of the teachers are well satisfied with the quality, the scheduling of the sessions and the subject content.

The teachers state that they agree or fully agree that the further education courses have contributed to their learning, and that the further education has made them reflect more on their own practice. They also find that it has given them new views on teaching that have had an impact on the pupils' learning. A slightly lower number of teachers agree or agree fully that the further education in general has improved their approach to teaching and given them a broader repertoire of teaching methods. The lowest number of teachers agree or agree fully that the further education has improved their work with well-being in the class and made them better classroom managers. Most of the teachers state that the further education has strengthened their professional competence in their teaching subjects.

The evaluation indicates that 61 per cent of the schools have a written description of the school's competence requirements, while 39 per cent of the schools do not have such a plan. Only 24 per cent of school leaders responded that they agree or agree fully that the school has a systematic plan for teacher participation in further education, and only 27 per cent of school leaders agree or agree fully that they have long-term plans for further education. The teachers state that they agree or agree fully that the teachers in their school who take further education are the ones who want to. When it comes to school planning and raising competence in schools after the teachers have participated in further education, the findings are discouraging. Half of the teachers state that there is no plan for sharing knowledge with colleagues, and that there is no expectation from teachers about sharing knowledge among them. Thirty-two per cent of the teachers state that they are responsible for sharing knowledge with colleagues. The evaluation ([Oxford Research, 2012](#)) states the following:

When the findings so clearly indicate that many schools do little to share knowledge, and that there is no long-term planning for further education, one might begin to feel sceptical about the amount of transfer. Transfer in this context means tapping into what teachers learn in their further education courses. When they do not share knowledge or cooperation on using what has been learnt, there is less transfer and hence less learning outcome from the schools' practice of the further education. This challenge is not restricted to further education, but is found in virtually all further and continuing education which is not linked to local practice communities and practice changes which can motivate participants and strengthen their opportunities to apply what they have learnt from a course (p. 37).

2.2. Theoretical Framework

All student teachers have been pupils, and many student teachers come to teacher training with their theories about how to perform the teaching practice. [Lortie \(1975\)](#) calls this prior knowledge about the teaching profession which students have acquired through observing their role models and which they bring to the teacher education "the apprenticeship of observation". Assumptions developed during the "apprenticeship of observation" condition what they learn. When teachers want to take further education, they come to it not only with their theories about how the teaching practice should be performed, but also with their personal theories based on

²In the texts we refer to the concept of researchactivity, R&D activity and action research in connection with activities teachers carry out in the course of their further education and in their own practice. We believe that teachers cannot carry out researchactivities, but understand the use of the term to mean that the teachers are researching and hence systematic in their work in school. However we site the terms as they are used in the texts referred to, and also use the term R&D, but then in the sense that the teachers adopt a researching approach to their practice.

their own teachers as role models in school when they were pupils themselves, and with what they have now experienced from practice in school. They are no longer observing apprentices, but they also carry with them experiences from practice in school, which, building on Lortie's construct, may be called "the apprenticeship of practice" (Postholm & Rokkones, 2013). They have experiences of practice and can integrate these in their learning experiences in further education if given the opportunity to do so. This means that their practice experiences must be brought into view or used in the further education so they can be challenged and developed. Hence, the teaching must be adapted to the teachers' point of departure so they have the opportunity to progress in their zone of proximal development (Vygotsky, 1978). This also applies to teachers' learning in school. The teachers must also feel that the learning has a purpose. Teachers, as all other learners, must have a good reason to learn and to develop their teaching practice (Timperley, Wilson, Barrar, & Fung, 2007).

Vygotsky (1978) defines the zone of proximal development as the distance between what a person can do alone and what he or she can do when given help by a more competent other. The competent other may for example be the teacher and other participants in the further education course. This means that traditional teaching, where the teacher presents material and participants listen, and group work may both contribute to learning if the participants get the opportunity to move into their zones of proximal development, thus expanding their actual development level (what they reach on their own) (Vygotsky, 1978). In Vygotsky's (2000) thinking, language was important both in communication and in the development of higher mental functions. To Vygotsky's thoughts and ideas we add Bakhtin's (1981) views on how meaning is created. He maintains that meaning and understanding are created in dialogic interaction processes. Dialogic interaction processes may come about in group work, where the participants actively use language, and in lectures, where the thought processes of participants are activated, thus leading to inner dialogue (Holquist, 1990; Vygotsky, 1978, 2000). Both lectures and group work may thus facilitate learning for each participant. This also applies to learning processes in school.

3. Background for the Study

In the course of one school year the three teachers that are informants in this study, took part in further education in RF and TIP. The three teachers had more than three years of teaching experience in school and could therefore not be defined as newly educated (Richter, Kunter, Klusmann, Lüdtke, & Baumert, 2011). The further education was a part-time course of studies consisting of six sessions each lasting three days over a study year. The course of studies awarded 30 study credits for both subjects. The sessions included lectures, excursions, group and project work and practical exercises. Work requirements between the sessions included theoretical exercises as well as in-depth development work where the teachers tested their ideas at their schools. Vocational didactics was included as an integral part of the course of studies for both RF and TIP.

Vocational didactics comprised key elements of the Knowledge Promotion curriculum, such as "curriculum development", planning teaching, in-depth projects, guidance, adapted teaching and assessment. Action learning as a method (Revans, 1982, 1984; Engeström, 2001; Engeström & Sannino, 2010) was a relevant approach when the participants were to carry out development activities, which was a key work requirement in the course of studies. As part of the course, the students were therefore given an introduction to the action learning method. They were to develop knowledge which would enable them to map, plan, implement, document and give grounds for development work related to their own school practice. The development work was to be carried out according to a survey and an assessment of the change requirements they found at their workplace. Thus work was intentionally carried out to develop the students' R&D competence.

4. Method

4.1. Data Collection

It was the three teachers that were introduced in the section above, and the school heads at their schools that were participants in the study. To capture the teachers' and school heads' experiences and reflections, we have used qualitative research interviews as the data collection strategy (Kvale & Brinkman, 2009). The teachers represent three schools, two large city schools, Riverside and Rock school, and a small district school, Fiord school. As we also have interviewed their heads of school so we have conducted a total of six interviews, two from each school. The socio-demographic characteristics of the six participants in the study were similar. The interviewees represent, as mentioned, both the subject fields offered in the further education programme, RF and TIP. All the

teachers have five to ten years of experience as teachers in upper secondary school in the vocational fields RF and TIP, and they can thus not be defined as newly educated (Richter et al., 2011). They teach Year 1 and Year 2 of upper secondary school. They all have wide and extensive practice from a company or business in their craft areas, have managerial experience and have had training responsibilities before they commenced their teaching careers in school. The heads of school who were interviewed also have extensive experience in their position in school.

Our aim was to obtain an overview of how different schools dealt with the knowledge acquired by teachers who took further education. By conducting interviews at three schools we were also able to find variation in the way knowledge was shared as a stage in the schools' attempts to raise competence. We designed an interview guide which we used as the basis for all the interviews, but conducted semi-structured interviews (Fontana & Frey, 1998), allowing both follow-up questions and themes we had not considered in advance to become part of the conversation. We attached importance to questions dealing with how the interviewees had perceived the work with and the implementation of the development activities, and how this became part of raising the school's competence. The participants were interviewed separately and we both took part in the interviews, which developed into a conversation between us and each participant. The prepared questions that were asked in all the interviews were:

- How will you describe and evaluate the further education course?
- Can you say something about the school's vision when it comes to raising competence?
- Can you say something about the school's strategy for further education and continuous learning in school?
- How are strategies implemented?
- Who is responsible for the implementation?
- What thoughts do you have on the further education course with regard to learning and teaching practice?
- Who decides who can take further education?
- What grounds are given for the selection?
- Do you have any thoughts about how many teachers should participate from your school?
- Can you say something about which factors/circumstances need to be addressed if development activities are to have an impact on the teaching and the pupils' learning?
- Where does the sharing of experience take place in your school?
- Do you at times feel a need for internal or external assistance for your own or the school's development?
You may describe experiences of this if you have had any.
- Where and how are dialogue arenas created between the administration and the teachers?

Some of the questions were adjusted and adapted according to whether the interviewee was a teacher or head of school.

4.2. Data Analysis

We divided the transcription work between us, but conducted the analysis of the data material together to find patterns and condense it to make it report friendly (Garfinkel, 1967; Sacks, 1992). We have used the open coding phase as described in the constant comparative method of analysis (Strauss & Corbin, 1998). While analysing the interviews we developed categories that covered our collected data. When coding and categorising the interviews, we arrived at the following main categories based on statements made by the participants: "The teachers' evaluation of the further education course", "The teacher's practice", "The school's visions and strategies", "Development and external help" and "Sharing experience".

The main categories form the structure for the presentation of the findings from the study. The statements we highlight from the interviews in the presentation of the various categories have been chosen because they together give a picture of how we understand the perceptions teachers and school leaders have of participation in further education in relation to the partaking teachers' own learning and the continuous learning for all teachers in the school. By using the constant comparative method of analyses, we develop categories across cases, according to Strauss and Corbin (1998). Therefore we have presented data from all settings under the same heading, given name from each of the main categories developed.

4.3. Quality and Ethics

Lincoln and Guba (1985) describe member-checking as the most commonly used method to give a study credibility.

To ensure the quality of the work all the participants in the study have read the article and they have stated that they feel the descriptions of them are accurate. The article complies with the ethical principle of making participants anonymous (NESH, 2006), and consequently all the informants have been given fictitious names to avoid recognition, and the education institutions responsible for the further education have not been named.

The descriptions and experiences that have been presented are connected to a particular further education programme. The findings presented may, however, have importance beyond their context, if the participants' experiences and an analysis and interpretation of these were to be presented to others who are interested and involved in further education of teachers and the sharing of knowledge in school. The text represents knowledge and may therefore function as a thinking tool (Gudmundsdottir, 2001) or impetus for others who want to contribute to the development of learning in school based on the further education of teachers.

5. The Findings from the Study

In the presentation of the findings the above-mentioned categories form the structure and thus the headings for the presentation. Before the presentation of the findings we introduce the teachers and the school leaders working at the three schools.

At Fiord school the teacher Frank and the school leader Fredrik work. At Riverside school the teacher Ronny and the school leader Rita are employees, and at Rock school the teacher Randi and the school leader Robert have their employment. Within the frame of the headings structuring the presentation data connected to the three teachers and schools leaders are presented in the same order as the schools above.

5.1. The Teachers' Evaluation of the Further Education Course

The teachers tell that they wanted more practical tasks related to the theory and theory that could be used directly in practice, in other words, practical teaching plans. Thus, the way they saw it, theory should be used as practical recipes to be used in the teaching. The teachers stated that the teacher educators for both RF and TIP presented content that was not really adapted to their prior knowledge, but they added that the teaching of vocational didactics had made them more aware of what they were doing. The recurring theme among the teachers was that the R&D activities gave them the most benefit. It was clear that they perceived a relationship between the teaching on campus and the work with the R&D project. The participants found that they learnt from each other when they cooperated and discussed their work on campus as they were able to air their experiences. They also wanted more group work. The participants stated that they also came together outside the campus in connection with their R&D work, spending both afternoons and evenings to work together. Participants from different schools found that they profited from working together, and they experienced that sharing knowledge was helpful in their R&D work and in their own teaching.

5.2. The Teacher's Practice

The teacher Frank think that as a whole the vocational didactics, the subjects and the ability to reflect upon developing teaching, has had the greatest importance. Frank states that he has developed an attitude to his own work where reflection is always an integral part. He also describes how he prepares for his classes and that this preparation is more efficient than previously. He states that both he and the pupils are pleased. The further education has had a major effect on his teaching, and he has noticed that he gets his pupils with him in a completely different way than he used to: "It's quite unbelievable. I wouldn't have traded jobs for even a day the way it is now, no way. It's simply wonderful, I look forward to every day."

The teacher Ronny believes it would have been beneficial if more teachers had participated together in the TIP further education: "Two or three would have made it easier to talk about things and share experiences." When asked about the importance of his participation in further education for the school, Ronny responds: "Only a little, I think, particularly because the vocational part didn't come off well, for me this was more frustration." But Ronny points out that there was much to learn from his co-students in the further education course, and that they have maintained this contact and share experiences and teaching material. When we ask whether this is continuation of the R&D activities in further education, Ronny answers: "Yes, you might well call it that, we're still doing it."

The teacher Randi states that the further education in RF has had an impact on her own practice: "I have

gained better insight into my subject, and can present this in a better way.” But she does not know whether there has been any effect on her colleagues and the rest of the school. She points out that there should be a common arena where the teachers can come together if there is to be development at the school. They have tried several times to create such an arena at the school, but it is not currently functioning. She explains that several teachers boycott meetings even during staff assembly time. The teacher still has contact with the other students from her further education course, and they continue to share experiences and teaching plans.

5.3. School's Vision and Strategy

Frank is not familiar with the school's strategy for further and continuing education in school. He also mentions that he started further education on his own initiative, but the school has treated him with good will and a positive response at all times.

Fredrik, the head of school, states that the school owner has prepared a plan for further education. He also tells us that the school's vision is to help one another to be better at the job and to make it easier to share experiences: “We make a number of project presentations during staff assemblies in the spring.” He goes on to say that when it comes to taking further education, it should be up to needs and wishes of teachers. They have no strategies. The head of school also states that they try to steer the situation so teachers do not attend courses that will not contribute to their development. “We also have more belief in development activities with colleagues than these random courses,” where, he adds, “They leave on their own and come back alone, and then it's business as usual.” Fredrik states that he considers development activities in school to be important, and that such activities should be led by experts with competence in the field. He considers leading improvement projects a challenge and adds that he would have liked the staff assembly time to have been used for development activities, but the teachers have not agreed to this.

When Ronny is asked whether he is familiar with the school's vision, strategy and plan for implementation of further education, he answers that these exist, even if he is unable to quote them verbatim. The teacher believes the head of school and the head of his department determine and prepare the strategy for raising competence and suggesting further education. The head of school, Rita, states that in fact the county authorities are the ones who have a strategy for further education, but that the school also prepares their own plans for further and continuing education as part of the school's plan of operations.

The school's vision is not totally clear for Randi. She believes that rather than a vision *per se*, their focus is on the pupils. The teacher does not know of any strategy plan for continuous learning and further education at the school, but tells that the administration at the school decides who gets to go to further education courses. The school owner (the county authority) has a strategy plan which focuses on classroom management and ICT, but the teacher says that he knows little about this, and that it is not discussed during staff assembly time at school.

According to Robert, the head of school, there is focus on raising competence at the school. The teachers apply for relevant courses and the administration prioritises who can participate according to the school's competence requirements. However, the head of school tells that the school does not have a special strategy for continuous and further education. He goes on to say that the school complies with the county authorities' strategy for school development and that his school has development plans. But, he adds, work on the school's plan has been slightly delayed this year due to a late start.

5.4. Development and External Assistance

The teacher Frank feels that support for his development activities is warm and cold and he says that the support was better when he was taking further education. He finds that there may be some uncertainty relating to the development activities, and that it might appear as if there is no direct goal and meaning behind it: “It's a bit diffuse in a way.” The head of school, Fredrik, says that he finds his job to be a bit lonely. He would like someone to come to the school who could advise him in his job, such as a researcher. It would have been useful, he says, to have had an external person in connection with development projects, someone he could turn to for advice and dialogue on school development. He would like to see a counselling system for heads of school.

The teacher Ronny states that certain things must be arranged if there are to be development activities at the school. Time must be earmarked for this, and this time should be part of the regular teacher resource. They have three meetings a week, and at two of these teachers sometimes present what they have learnt at courses. He says that he and several of his colleagues feel that it is wasted time when nothing more happens after completing the

course. Rita, the head of school, states that school development is in accordance with the school owner's wishes, during this particular period of time assessment activities are in focus: "We have a special group at the school with responsibility for assessment work." When asked how this is shared with colleagues, she states that they have no set procedure; it is done a bit randomly.

The teacher Randi tells of one instance when assistance from an external source was requested in connection with cooperation problems at the school. They have also had external assistance in connection with classroom management at a staff seminar. But the teacher dismisses this: "Nothing happens after seminars like that." Robert, the head of school states that they have used some external assistance for development activities in connection with classroom management: "Basically I'm a bit sceptical to such 'happenings', but in this case it worked very well, he concluded".

5.5. Sharing Experience

Based on the teacher Frank's description, the development activities he has carried out have had an impact on his colleagues. He says that some development work is shared during meetings, for example his project. Most of the time is spent on presentations, the development takes place in another arena: "For my part this occurs mostly at home." During the interview we asked whether it would have been important if several teachers took the same further education. "That would have been fantastic," the teacher answered.

The head of school, Fredrik, describes how sharing experiences of large projects occurs at the end of the school year when the projects have been completed, such as a focus on ICT and assessment. These are projects running the entire school year. Smaller projects are discussed weekly during assembly time. The teacher who participated in the further education course presented his project to all the teachers during the assembly time. The school head also states: "All the TIP teachers are familiar with it, and he uses his material when teaching in an incredibly good way, so that all the teachers in a way take part in it. They use it in the workshop, and I consider what he has developed a fantastic benefit for the TIP department and for all the other teachers."

The teacher Ronny tells us that they have meeting arenas where they can discuss various teaching challenges and pupil cases. It is possible to discuss experiences from further education here. "This is not a requirement, but an opportunity if you feel for it," he states. The teacher tells us that the R&D activities that were part of the further education have influenced his choice of teaching methods, and that he is now more aware of his choices. Parts of the R&D activities have been shared with colleagues in his department. This has led to closer cooperation between some of the teachers: "So something good came out of it," he surmises.

Rita, the head of school, states that experience is shared in section meetings. This could be examples of sharing experiences about assessment and ICT, and there is also work on subject specific themes. Teaching is planned by work teams during another fixed meeting time. "We have no fixed procedures for sharing in the context of further education. We are better at this when it comes to short courses. Then we can say that the teachers can share with colleagues in section meetings."

The teacher Randi tells us that she has attempted to share what she learnt from the further education course, and finds that some colleagues are receptive while others are not. Experiences are shared "sometimes" in connection with assembly time. This takes place once a week, and it is possible to discuss themes touching on the areas the school owner and the school have decided to focus on. The teacher continues: "However, this has not been carried out very much. The administration is responsible for meeting agendas, and we can offer input in relation to themes." During this autumn semester there has not been much work on this. The head says that the school has no system for sharing: "I must admit that this is really not good at all."

6. Analysis and Discussion

Using sociocultural theory and Vygotsky's ideas, as is the theoretical framework of our study, Warford (2011) states that educating teachers is situated learning. Facts are not transferred to learners, but learners attach personal meaning to the content through cultural artefacts. A cultural artefact in this context may be language used in conversation, or the learner may be in dialogue with a text. Teaching teachers with this perspective as the underpinning often presupposes a dialogue between the teachers' previous experience, their tacit understanding of pedagogy and the new pedagogical content they are presented. According to Warford (2011), teachers cannot learn without tapping into their previous knowledge and experience in the learning process, i.e. their "apprenticeship of practice" must be activated (Postholm & Rokkones, 2013). The teachers in our study experienced

that the content of the lectures during the course was not adapted to their prior knowledge. If the point of departure is the teachers' prior knowledge, they may be assisted in their zones of proximal development by more competent others (Vygotsky, 1978). More competent others may in school be colleagues, external teachers or other resource persons.

A teacher who has taken further education may be seen as a resource person, where the knowledge and thematic approach from the course can be a benefit for others. Timperley et al. (2007) maintain that teachers need new knowledge and skills if they are to think about and conduct their practice in new ways, and that schools need external resource persons who can contribute to this. If teachers who have taken further education are to be able to function as resource persons for their colleagues, they need meeting arenas where new and old knowledge can be integrated and developed. Our study shows that there are few such meeting arenas and strategies that frames teachers' cooperation and exchanges of experiences and ideas. Additionally the study shows that if teachers are sharing experiences, it is by presentations of projects, usually in a one-way monologue.

Research findings show that teacher cooperation impacts teachers' learning (Given, et al., 2010; Glazier, 2009; Lawrence & Chong, 2010; Levine & Marcus, 2010; Meirink, Meijer, & Verloop, 2009; Vescio, Ross, & Adams, 2008; Zwart, Wubbels, Bergen, & Bolhuis, 2009). Our study of the participating teachers shows that R&D activities constitute a work form that may serve as a link between teachers' learning and their performance in their job. The participants continue to cooperate with course colleagues. This shows the importance of several persons from each school taking part in the same further education course. The close proximity of colleagues may make it easier to organize cooperation, and it may be easier to share new knowledge with the whole staff when several persons with greater strength contribute to the competence development at their own school. But for this to happen, the school must have a culture and structure that supports development (Blackler, 1995; Postholm, 2008a). This requires that the school leaders have competence about how a culture is created for the teachers' learning and how the learning processes should be structured. In our study one of the school leaders utters that competence is needed to lead development processes, but we found that it is not the case and a living practice for the school leaders in our study.

The English researchers Opfer, Pedder, & Lavicza (2011) found in a study that orientation on the school level is important when it comes to teachers' learning in school. They point to the importance of schools communicating a clear vision, that they support professional development and that they see the importance of expertise and supporting networks. They add that it is not enough to communicate these convictions, they must also be practised. Their study thus shows that both individual and organizational factors have an impact on teachers' learning, but according to Opfer and Pedder (2011), the school's capacity to support professional learning and involve teachers in cooperative activities is what can best lead to good results at a school. They also found that schools need assistance and counselling to develop the necessary capacity to support teaching and learning because the teachers and school leaders cannot do this alone.

If there is to be development at a school there must be a guiding idea for this development. According to Opfer et al. (2011), an overriding goal or vision is needed and it is important that all concerned understand the purpose of any development activity that is initiated, maintain Timperley et al. (2007). This means that the beginning phase of development activities aimed at promoting the learning of both teachers and pupils is very important for how the work progresses (Postholm, 2008b). This then indicates that someone has to lead this work where visions and goals are formulated to show the road ahead. The head of one of the schools participating in the study is aware of the responsibility of leaders in development activities when he says that there should be a counselling system for school leaders. Clearly, the other two schools also do not have such a system showing how learning is to take place among the colleagues at their own school.

All three teachers feel they have benefited from the study, one of them most in cooperation with other participants. None has specific knowledge about the school's visions and strategies for continuous learning in school and further education. However, one of the heads of school states that the sharing of experience is part of the school's vision, but adds that it is difficult to get teachers to understand this. Obviously, the teachers have not understood the purpose or seen the meaning of such an activity as a strategy for development (Timperley et al., 2007). According to Stoll, Bolam, McMahon, Wallace, and Thomas (2006), active support from school leaders is needed to develop schools as professional learning communities in which colleagues learn together. School leaders are thus important in this process as they must facilitate for processes with good content. They must endeavour to understand how their teachers think and act so they can find processes enabling them to learn

together. If teachers have the opportunity to learn together, this may also contribute to pupils learning more (Levine & Marcus, 2010).

Learning has the best chance to be successful in a good learning culture. A good learning culture for teachers means that they are motivated for learning, and that they also feel they are in an environment that appreciates learning and them as learners. There must be good relations between them. Edwards (2005) defines relational competence as having “the capacity to align one’s thoughts and actions with those of others in order to interpret problems of practice and to respond to those interpretations” (p. 169). When it comes to school leaders, they have to attempt to understand the thoughts and actions of teachers and lead their processes so that they can learn together. We mentioned structure above. This means that meeting arenas must be established where experience and learning can be shared, and the teaching schedule is in this context a good tool which may form the structure for teachers’ learning. Just as the schedule sets off time for meetings between pupils and teachers, it may also form the structure for leaders’ and teachers’ learning by scheduling time for sharing experiences.

Our findings show that participants in further education want theory that can be applied directly in practice, in other words practical plans for how to teach. The participants also stated that the teaching of vocational didactics had made them more aware of what they do in school. This does not correspond to the evaluation of further education (Oxford Research, 2012). In that evaluation, subject didactics and vocational didactics have not been given prominence in the feedback from the teachers. In our study, the recurring theme among the participants is that they learnt most from the R&D activities. This is consistent with previous studies (OECD, 2009; McMahon et al., 2007). All in all, our study shows that the teachers find they have learnt from the further education, and that this learning continues to be important for work after one year. But our study also shows that schools do not have visions or strategies for how competence development can take place at school, and that the sharing of experience is not a key activity in schools’ learning. This is consistent with findings in the evaluation (Oxford Research, 2012), which clearly indicates that it will be difficult to spread knowledge if teachers do not share knowledge and cooperate in school. When school lacks strategies for development and when leaders lack competence in leading development activities, it will also be difficult to know which competence is needed and when external resource persons should be invited to the school.

In the present study three teachers and three school leaders at three schools are interviewed. The study thus presents local contextual knowledge constructed on the basis of few persons. This is a limitation of the study if the intention is to get a broader picture of further education and learning in school. An interesting focus for further research could therefore be to conduct a survey including several teachers and school leaders to get an overview over teachers’ and school leaders’ perceptions of further education and learning in school.

7. Conclusion

If further education is to contribute to change and development in schools beyond individual learning, the school must be organized as a learning community. This means that the school has a vision that is familiar to all and that there is an agreed understanding of development activities that may move school practices in the direction of this vision. This in turn requires that leaders provide arenas and room for communication where visions and targets can be formulated and understood through common dialogue. School leaders need such competence in leading learning in an organization. Just like a leader of a class in school, the leader of a school should endeavour to create a good learning environment for teachers, which means that there must be a good atmosphere and trust between teachers and leaders, and that there is room to fail. And in the same way as for pupils’ learning, the teachers should also be given suitable challenges. The school leader should be a “warm demander” (Evertson & Weinstein, 2006: p. 11) who both supports and challenges teachers in their learning. As the leader supports and challenges the teachers, the teachers should also act in the same manner with each other. This also means that teachers should have knowledge about and understanding of how change and development can be promoted in school. For schools to function as learning practice communities, both leaders and the education of teachers must help to equip the participants for promoting learning in school. If teachers taking further education feel they are part of a learning practice community at their own school, where visions and strategies frame their activities, the content of the further education may become a natural part of the learning content of this community.

References

Bakhtin, M. (1981). *The Dialogic Imagination*. M. Holquist (Ed.), Austin, TX: University of Texas Press.

- Beijaard, D., Korthagen, F., & Verloop, N., (2007). Understanding How Teachers Learn as a Prerequisite for Promoting Teacher Learning. *Teachers and Teaching: Theory and Practice*, 13, 105-108. <http://dx.doi.org/10.1080/13540600601152298>
- Blackler, F. (1995). Knowledge, Knowledge Work and Organizations: An Overview and Interpretation. *Organization Studies*, 16, 1021-1056. <http://dx.doi.org/10.1177/017084069501600605>
- Buczynski, S., & Hansen, C. B. (2010). Impact of Professional Development on Teacher Practice: Uncovering Connections. *Teaching and Teacher Education*, 26, 599-607. <http://dx.doi.org/10.1016/j.tate.2009.09.006>
- Edwards, A. (2005). Relational Agency: Learning to be a Resourceful Practitioner. *International Journal of Educational Research*, 43, 168-182. <http://dx.doi.org/10.1016/j.ijer.2006.06.010>
- Engeström, Y. (2001). *Expansive Learning at Work: Toward an Activity Theoretical Reconceptualization*. London: Institute of Education, University of London.
- Engeström, Y., & Sannino, A. (2010). Studies of Expansive Learning: Foundations, Findings and Future Challenges. *Educational Research Review*, 5, 1-24. <http://dx.doi.org/10.1016/j.edurev.2009.12.002>
- Evertson, C. M., & Weinstein, C. S. (2006). Classroom Management as a Field of Inquiry. In C. M. Evertson, & C. S. Weinstein (Eds.), *Handbook of Classroom Management: Research, Practice, and Competence Issues* (pp. 3-15). Mahwah, NJ: Lawrence Erlbaum Associated.
- Fontana, A., & Frey, J. H. (1998). Interviewing: The Art of Science. In N. K. Denzin, & Y. S. Lincoln (Eds.), *Collecting and Interpreting Qualitative Materials* (pp. 47-78). Thousand Oaks, CA: Sage Publications, Inc.
- Garfinkel, H. (1967). *Studies in Ethnomethodology*. Englewood Cliffs, NJ: Prentice Hall.
- Given, H., Kuh, L., LeeKeenan, D., Mardell, B., Redditt, S., & Twombly, S. (2010). Changing School Culture: Using Documentation to Support Collaborative Inquiry. *Theory into Practice*, 49, 36-46. <http://dx.doi.org/10.1080/00405840903435733>
- Glazier, J. A. (2009). The Challenge of Repositioning: Teacher Learning in the Company of Others. *Teaching and Teacher Education*, 25, 826-834. <http://dx.doi.org/10.1016/j.tate.2008.11.014>
- Gudmundsdottir, S. (2001). Narrative Research in School Practice. In V. Richardson (Ed.), *Fourth Handbook for Research on Teaching* (pp. 226-240). New York: Macmillan.
- Holquist, M. (1990). *Dialogism: Bakhtin and His World*. London: Routledge. <http://dx.doi.org/10.4324/9780203330340>
- Kvale, S., & Brinkmann, S. (2009). *Det kvalitative forskningsintervju [The Qualitative Research Interview]*. Oslo: Gyldendal akademisk.
- Lawrence, C. A., & Chong, W. H. (2010). Teacher Collaborative Learning through the Lesson Study: Identifying Pathways for Instructional Success in a Singapore High School. *Asia Pacific Education Review*, 11, 565-572. <http://dx.doi.org/10.1007/s12564-010-9103-3>
- Levine, T. H., & Marcus, A. S. (2010). How the Structure and Focus of Teachers' Collaborative Activities Facilitate and Constrain Teacher Learning. *Teaching and Teacher Education*, 26, 389-398. <http://dx.doi.org/10.1016/j.tate.2009.03.001>
- Lieberman, A., & Pointer Mace, D. H. (2008). Teacher Learning: The Key to Educational Reform. *Journal of Teacher Education*, 59, 226-234. <http://dx.doi.org/10.1177/0022487108317020>
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. Beverly Hills, CA: Sage Publications, Inc.
- Lortie, D. C. (1975). *Schoolteacher: A Sociological Study*. Chicago, IL: University of Chicago Press.
- McMahon, M., Reeves, J., Devlin, A., Simpson, J., & Jaap, A. (2007). *Evaluating the Impact of Chartered Teacher in Scotland: The Views of Chartered Teachers*. Project Report. General Teaching Council Scotland, Edinburgh.
- Meirink, J. A., Meijer, P. C., & Verloop, N. (2009). How Do Teachers Learn in the Workplace? An Examination of Teacher Learning Activities. *European Journal of Teacher Education*, 32, 209-224. <http://dx.doi.org/10.1080/02619760802624096>
- Ministry of Education and Research (2008a). *Stortingsmelding nr. 31 (2007-2008) Kvalitet i skolen [White Paper No. 31 (2007-2008) Quality in School]*. Oslo: Ministry of Education and Research.
- Ministry of Education and Research (2008b). *Kompetanse for kvalitet. Strategi for videreutdanningavlærere [Competence for Quality]. Strategy for Teachers' Further Education]*. Oslo: Ministry of Education and Research.
- NESH (2006). *Forskningsetisk retningslinjer for samfunnsvitenskap, jus og humaniora [Research Ethical Guidelines for Social Science, Law and the Humanities]*. Oslo: Norwegian National Committees for Research Ethics. <http://www.etikkom.no/no/Vart-arbeid/Hvem-er-vi/Komite-for-samfunnsvitenskap-og-humaniora/>
- OECD, Norwegian Directorate of Education and Training, & NIFUSTEP (2009). *OECDs internasjonale studie av undervisning og læring [OECD's International Study of Teaching and Learning]*. <http://www.oecd.org/edu/school/43023606.pdf>
- Opfer, V. D., & Pedder, D. G. (2011). The Lost Promise of Teacher Professional Development in England. *European Journal of Teacher Education*, 34, 3-23. <http://dx.doi.org/10.1080/02619768.2010.534131>

- Opfer, V. D., Pedder, D. G., & Lavicza, Z. (2011). The Role of Teachers' Orientation to Learning in Professional Development and Change: A National Study of Teachers in England. *Teaching and Teacher Education*, 27, 443-453. <http://dx.doi.org/10.1016/j.tate.2010.09.014>
- Oxford Research (2012). *Evaluering av nasjonalstrategi for videreutdanning av lærere [Evaluation of the National Strategy for Teachers' Further Education]*. Aarhus: Aarhus University.
- Parise, L. M., & Spillane, J. P. (2010). Teacher Learning and Instructional Change: How Formal and On-the-Job Learning Opportunities Predict Change in Elementary School Teachers' Practice. *The Elementary School Journal*, 110, 323-346. <http://dx.doi.org/10.1086/648981>
- Postholm, M. B. (2008a). Teachers Developing Practice: Reflection as Key Activity. *Teaching and Teacher Education*, 24, 1717-1728. <http://dx.doi.org/10.1016/j.tate.2008.02.024>
- Postholm, M. B. (2008b). The Start-Up Phase in a Research and Development Work Project: A Foundation for Development". *Teaching and Teacher Education*, 24, 575-584. <http://dx.doi.org/10.1016/j.tate.2007.08.001>
- Postholm, M. B., & Rokkones, K. (2013). Videreutdanning i yrkesfaglige programfag: Læreres opplevelser av studiets betydning for egen læring og yrkesutøvelsen i skolen [Further Education in Vocational Subjects. Teachers' Experiences of the Study for Their Own Learning and the Exercise of the Profession in School]. *Tidsskriftet FoU i praksis*, 7, 93-111.
- Revsans, R. W. (1982). *The Origins and Growth of Action Learning*. Bromley: Chartwell-Bratt Ltd.
- Revsans, R. W. (1984). *The Sequence of Managerial Achievement*. Bradford: MCB University Press.
- Richter, D., Kunter, M., Klausmann, U., Lüdtke, O., & Baumert, J. (2011). Professional Development across the Teaching Career: Teachers' Uptake of Formal and Informal Learning Opportunities. *Teaching and Teacher Education*, 27, 116-126. <http://dx.doi.org/10.1016/j.tate.2010.07.008>
- Sacks, H. (1992). *Lectures on Conversation*. Oxford: Blackwell.
- Stoll, L., Bolam, R., McMahon, A., Wallace, M., & Thomas, S. (2006) Professional Learning Communities: A Review of the Literature. *Journal of Educational Change*, 7, 221-258.
- Strauss, A., & Corbin, J. (1998). *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*. Thousand Oaks, CA: Sage Publications, Inc.
- Timperley, H., Wilson, A., Barrar, H., & Fung, I. (2007). *Best Evidence Synthesis Iteration (BES) on Professional Learning and Development*. Wellington: Ministry of Education.
- Vescio, V., Ross, D., & Adams, A. (2008). A Review of Research on the Impact of Professional Learning Communities on Teaching Practices and Student Learning. *Teaching and Teacher Education*, 24, 80-91. <http://dx.doi.org/10.1016/j.tate.2007.01.004>
- Vygotsky, L. S. (1978). *Mind in Society. The Development of Higher Psychological Processes*. Cambridge: Harvard University Press.
- Vygotsky, L. S. (2000). *Thought and Language*. Cambridge, MA: MIT Press.
- Warford, M. K. (2011). The Zone of Proximal Teacher Education. *Teaching and Teacher Education*, 27, 252-258. <http://dx.doi.org/10.1016/j.tate.2010.08.008>
- Zwart, R. C., Wubbels, T., Bergen, T., & Bolhuis, S. (2009). Which Characteristics of a Reciprocal Peer Coaching Context Affect Teacher Learning as Perceived by Teachers and Their Students? *Journal of Teacher Education*, 60, 243-257. <http://dx.doi.org/10.1177/0022487109336968>