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Challenges in developing in-service teacher training: Lessons learnt from two projects for teachers of Swedish in Finland

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Teacher education in Finland is widely respected and of high quality. However, there is a recognised need to develop the educational continuum from pre-service education to in-service training. This article deals with challenges connected to in-service teacher training. Based on two projects, consisting of seven one-month courses for teachers of Swedish in Finland, we reflect on the challenges we encountered during the three-year process. In our research, theory and practice, but also data and methods, have been intertwined, as we have studied the phenomenon by using exploratory practice (Allwright, 2003). The projects and the study were based on a thorough literature review. During the planning phase, we identified many issues that should be taken into consideration during in-service training projects for teachers of Swedish, e.g., challenges posed by the new national core curricula and the new distribution of lesson hours, declining results in middle-long Swedish (Syllabus B1), relatively low self-reported school satisfaction, and problems linked with teachers' professional development. In this paper, we report on challenges we encountered during the process. These included challenges connected to (a) teacher co-operation, (b) traditional vs. modern teaching methods, and (c) teachers' language skills. Based on our research, we wish to emphasise the importance of research-based planning and implementation of in-service training, as well as a genuine connection between in-service training, teachers' everyday work and school reality.

Keywords: in-service teacher training, professional development, challenges, teachers of Swedish

1 Introduction

Teacher education in Finland is well-known internationally for its high quality (e.g., Mikkola, 2012; Niemi, 2011, pp. 43–44, 2012, pp. 36–37, 2015, p. 282; Sahlberg, 2013); the reputation is, to a great extent, due to Finnish students' excellent results in PISA studies. However, the field of in-service training is fragmentary, and there have been discussions for a long time about updating both in-service training and the whole teacher education continuum. The aim of

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our study is to examine and discuss challenges that are connected to in-service teacher training for language teachers. We have based our study on two FNBE-financed (FNBE = Finnish National Board of Education) in-service teacher training projects, consisting of seven one-month courses for teachers of Swedish in Finland. The courses in each project were almost the same, but we modified them to some extent based on participants' feedback. Even though the projects were independent of each other, they were planned so that it was possible to attend a course within the first project and then continue with a course within the second project, which some participants also did. The projects were organised by the authors of this paper with two other teacher-researchers and three part-time trainees.

Our main research question is the following: What kinds of challenges are connected to in-service training for language teachers? In order to answer the question, we discuss the following issues:

a) What should be taken into consideration in planning the training?
b) What kinds of challenges are involved in implementing the training?
c) What kinds of solutions can be found to solve these problems?

The outline of the article is as follows: In Section 2, we provide some background information on teacher education in Finland and the position of Swedish in Finnish schools; we also describe some problematic issues that made us start the projects. Section 3 presents the data and methods used. In Section 4, we concentrate on the challenges that we encountered during the projects, and in the final section, we discuss our results and draw some conclusions concerning possible solutions to the challenges.

2 Background

2.1 Teacher education in Finland

In Finland teaching is an appreciated profession and career (Jyrhämä & Maaranen, 2012, p. 100), and traditionally, learning and teaching are held in high respect within the Finnish culture (Niemi, 2012, p. 21). According to a new study, teacher's profession is the fourth on the list of most respected professions, after only doctors, policemen and nurses (OAJ, 2016). At all school levels, teachers are qualified and committed pedagogical experts who are deeply involved in drafting the local curriculum and in development work (Niemi, 2011, pp. 43–44, 2012, pp. 32–36, 2015, p. 282; Toom & Husu, 2012, pp. 39, 43). This is done in accordance with the national core curriculum, either the national core curriculum for basic education (FNBE, 2014a) or the national core curriculum for upper secondary education (FNBE, 2015), that has a strongly leading and normative role in developing school curricula. Furthermore, teachers have almost exclusive responsibility for the choice of textbooks and teaching methods; they work independently and enjoy pedagogical autonomy in the classroom (Niemi, 2011, pp. 43, 62–63, 2012, pp. 32–36, 2015, pp. 281–284; Toom & Husu, 2012, pp. 39, 43). Finland has no inspection system or national achievement testing, but instead, has an evaluation system (Niemi & Isopahkala-Bouret, 2015, p. 136). National school performance is measured by means of sample-based

national tests (Kumpulainen & Lankinen, 2012). Assessments and evaluations are enhancement-led and have a mainly formative function, improving students' learning (Niemi, 2012, pp. 27–29; Niemi & Isopahkala-Bouret, 2015, pp. 136–137). In Finland, teachers are seen as professionals who are morally responsible for their work (Niemi, 2012, p. 36).

Behind competent teachers there has to be high-quality teacher education. In Finland, the teaching profession is regulated by the Teaching Qualifications Decree (986/1998) and the amendment to it (865/2005). There are no official national standards and no national curriculum for teacher education. Instead, there are recommendations by the Ministry of Education and by different working groups. In practice, every university is responsible for the quality of its teacher education. (See Niemi, 2011, p. 45, 2012, p. 31.) Our article deals with teacher education at a general level, even though our data were gathered in connection with in-service teacher training organised by the University of Helsinki.

All teacher education, including primary school teachers, requires formal education to at least master's level (5-year programmes) (see Niemi, 2012, pp. 29–35, 2015). The education of teachers varies depending on the qualifications they need. Class teachers (primary school teachers) work in grades 1–6 of comprehensive school, whereas subject teachers work mainly in lower secondary school (grades 7–9 of comprehensive school) and upper secondary school; subject teachers may also work in liberal adult education and vocational education. In general education, class teachers have a master's degree with a major in educational sciences and minors in other disciplines. Subject teachers often major in the subject that they teach or have it as one of their minors (at least basic and intermediary studies, 60 ECTS). This education allows and also prepares all teachers to continue their studies after their master's exam to the doctorate level. All teacher education includes supervised teaching practice.

Those who work as subject teachers of Swedish in comprehensive school, have completed at least basic and intermediary studies (60 ECTS, as a minimum) in Swedish (the name of the subject may vary according to university). If they teach in upper secondary school, they need basic, intermediary, and advanced studies (at least 120 ECTS) in one of the subjects they teach. Subject teachers of Swedish have completed a master's level exam and undertaken pedagogical studies for teacher qualification (60 ECTS, as a minimum). In addition, often they also teach other subjects, mainly other languages (for more information on the education of teachers of Swedish, see Rossi et al., 2017).

In Finland, the teacher education of teachers of Swedish, as with all teacher education, is based on the principle of developing a research-based professional culture (Niemi, 2012, p. 32). The aim is to educate inquiry-oriented professionals who can integrate theory and practice in their work, and on the basis of these, "form a continually developing personal practical theory" (Jyrhämä & Maaranen 2012, p. 98). Research orientation can thereby be seen as a certain kind of attitude, "a way of working and thinking rather than merely producing research" (ibid., p. 98). The aim is to educate professionals who are autonomous and ethical, and have a research-based orientation in their work (Tirri, 2012, p. 64; see also Niemi, 2015; Niemi & Isopahkala-Bouret, 2015).

2.2 The position of Swedish in Finnish schools

According to the constitution of Finland, along with Finnish, Swedish is one of the two national languages, and it is the mother tongue of about 5.3% of the population (Statistics Finland, 2016a), mainly in the coastal areas of the country. (For an explanation of the linguistic situation in Finland, see Tainio & Grünthal, 2012, pp. 150–151.) Even if Swedish is officially one of the two national languages, in practice it is seen as a foreign language in many parts of Finland, as people rarely have any naturally occurring contact with the language in their everyday life.

The most common foreign language taught as part of Finnish basic education is English, and about 90% of schoolchildren choose English as their first foreign language (Syllabus A1 = starting in grade 3, at the latest). Swedish has been an obligatory school subject in basic education in Finland ever since the implementation of comprehensive schooling during the 1970s. Although it is possible to choose Swedish as a Syllabus A-language, only about 4.5% of students do so (Statistics Finland, 2016b). Most schoolchildren study Swedish as a (middle-long) Syllabus B1-language (see Section 2.3.1; Hildén & Kantelinen, 2012, pp. 161–162). From 2005, Swedish became a voluntary subject in the matriculation examination. Partly as a result of that, the number of students who take the matriculation examination test in Swedish has declined considerably.

2.3 Issues behind our projects

Whenever an education project is planned, it is important to find out what kind of education is needed and why the education is necessary (FNBE, 2014b). In this process, surveys concerning educational needs, as well as national guidelines for education policy, can be of great assistance. Based on our preliminary investigation, we identified several issues that convinced us that something should be done in order to develop Swedish teaching in the current situation. These issues were connected to the new curricula and the new distribution of lesson hours, declining learning results in Syllabus B1-Swedish, relatively low self-reported school satisfaction, and problems linked with teachers' professional development. These factors affected the aims, content and methods of the training as well as our definition of the target group.

2.3.1 New curricula and new distribution of lesson hours

Until the autumn term of 2016, teaching Syllabus B1-Swedish to Finnish-speaking students used to start in grade 7, i.e., in lower secondary school. From the beginning of August 2016, teaching Syllabus B1-Swedish has started in grade 6 at the latest (see Table 1). This change is connected to the new national core curriculum for basic education and the new distribution of lesson hours. The Finnish National Board of Education drew up the latest national core curriculum for basic education in 2014 (FNBE, 2014a). New local curricula that are based on this core curriculum were taken into use in schools in the autumn 2016. The new national core curriculum for upper secondary education (FNBE, 2015) is being implemented gradually, starting from August 2016 for those who began their upper secondary education then.

Table 1. Distribution of lesson hours for basic education.

	Grades 1 – 6						Grades 7 – 9		
Grade	1	2	3	4	5	6	7	8	9
A1 language	(x)	(x)	x	x	x	x	x	x	x 608
A2 language			(x)	x	x	x	x	x	x 456
B1 language						x	x	x	x 228
B2 language							(x)	x	x 152

(Source. Finlex 422/2012, modified into a Table)

In itself, an earlier start of Swedish language learning can be regarded as a very positive thing, but it also entails some problematic aspects. At the moment, the total number of lesson hours in Syllabus B1-Swedish in lower secondary school is 228, which is noticeably fewer than the lesson hours for Syllabus A-languages. One problem with this new system is that the total number of lesson hours remains the same as earlier. This means that the 228 lesson hours that were earlier divided between grades 7–9 are now divided between grades 6–9 (see also Rossi et al., 2017). Municipalities are responsible for organising basic education, and different municipalities are in different economic situations. Some municipalities have the opportunity to organise extra lesson hours at their own cost, whereas others are forced to resort to special arrangements. There are municipalities that have plans to place all lesson hours in Syllabus B1-Swedish in grades 6–8. If these plans are implemented, it may become much more difficult for students to continue their studies in Swedish after lower secondary school. In addition, one lesson per week does not seem adequate for ensuring sufficient development of language skills.

There has been considerable discussion about who should teach in grade 6 (see Koivisto, 2016; Rossi et al., 2017). It is likely that few municipalities have the economic resources to employ qualified subject teachers for the job. In addition, during their own education, subject teachers learn to teach (mainly) secondary school students. They need in-service training in order to teach sixth-graders with inspiring and activating methods. Research has shown that it is particularly important to support boys' foreign language self-concept at an early stage (Henry, 2009, p. 189). In many schools, lessons in Syllabus B1-Swedish will be taught by class teachers. But it is an open question whether class teacher education gives the necessary skills to teach Swedish (see also Rossi et al., 2017, pp. 106–118). (For information on differences in competence between class teachers and subject teachers, see Section 2.1; Niemi, 2011, pp. 54–57.) Their basic education does not contain language studies, and relatively few of the students who become class teachers choose Swedish as one of their minor subjects.

2.3.2 Declining learning results in Syllabus B1-Swedish

It has come up in several studies that language skills and learning results in Syllabus B- Swedish have gone down, and that they are barely satisfactory at the end of comprehensive school. The situation is especially worrying concerning oral and written production. According to Tuokko's (2009) report, based on the

evaluation from 2008, the skills demanded for mark 8 ("good skills", level A1.3) was reached by only 19% of students in writing and 16% of students in oral production. The report took up particularly the need to focus on oral communication (Tuokko, 2009, p. 46).

One of the reasons for these declining language skills is that the number of lesson hours in Syllabus B1-Swedish is only half of what it was in the 1970s (Ministry of Education and Culture, 2012, p. 39; see Table 1). The situation concerning boys' skills is even more problematic as their skills are much weaker than girls' (Ministry of Education and Culture, 2012, p. 31; Takala, 2012, p. 3). We can also ask if our teaching methods should be updated, and more attention paid to school satisfaction.

2.3.3 Relatively low school satisfaction

In international comparison, according to surveys by the World Health Organization, WHO, Finnish schoolchildren are not very enthusiastic about going to school (Inchley et al., 2016; Kämppi et al., 2012, p. 27). Salmela-Aro and her research team have found that many young people experience a lack of meaning concerning school and their own studies (Salmela-Aro, 2017). According to their research, almost one half of schoolchildren do not see school as meaningful at the end of elementary school. Reasons for this cynical stance can probably be found in "an overall negative attitude in Finnish society induced by the recession", and in the "widening gap between the dominant educational practices and the new digital native generation" (ibid., pp. 344–345). However, Hildén and Rautopuro (2014, p. 135) state that almost 70% of students who study Syllabus A-Swedish actually like going to school.

It has come up that boys' school satisfaction is generally lower than girls' in Finnish schools (Ministry of Education and Culture, 2012, p. 40; Salmela-Aro & Tuominen-Soini, 2013; Takala, 2012, p. 7). The same is true concerning Swedish as a school subject: girls like it more than boys (Hildén & Rautopuro, 2014, p. 136). This may be caused by many factors. Are our teaching methods perhaps more suitable for girls than for boys? Is it more acceptable for girls to say they like school? (See also Henry, 2009, p. 185.) It is sometimes said that school favours girls – what does this mean in practice? Could games be a way of tempting boys to study languages; boys do well in English in upper secondary school – is the reason for this their use of digital games (Uuskoski, 2011)? Are girls in lower secondary school perhaps more mature than boys for studying? There are many relevant questions, but many of them are still unanswered.

Motivation is a central factor in learning (Dörnyei, 2009; Dörnyei & Ushioda, 2013), and attitudes towards learning a language are one aspect of motivation (Gardner, 1985). In different surveys and reports it has been noticed that Finnish speaking schoolchildren experience learning Swedish as difficult; the language is seen as a relatively boring subject, and lessons in Swedish as non-interesting (Hildén & Rautopuro, 2014, pp. 130–135; Ministry of Education and Culture, 2012; Tuokko, 2009, p. 33; on gender differences, see Henry, 2009). According to an attitude survey from 2008, only 5% of students named Swedish as their favourite subject (Tuokko, 2009, p. 33). In a newer national survey, however, Swedish was seen as a relatively useful language; over one half of ninth-grade students of Swedish (A1-Syllabus) saw the language as useful at least to some extent (Hildén & Rautopuro, 2014, p. 131).

2.3.4 Need to strengthen teachers' professional development

The FNBE (2014b) has called attention to the effectiveness of education. Research has shown that in-service training of language teachers is effective: teachers' participation in in-service training of their own field makes students' learning results better in all areas of their language skills (Hildén & Rautopuro, 2014). Long-term in-service training makes teachers change at least some aspect of their teaching; in addition, it is more likely that teachers will change their teaching practices if they participate in several long-term courses. Teachers see sharing their practices as useful, and observing other teachers makes them look at their own practices more closely. (Boyle, While & Boyle, 2004.) On the other hand, it is acknowledged as being difficult to measure the effectiveness of in-service training (Tan, 2014).

Teachers need qualifications in many different areas. Schulman's (1986) concept *pedagogical content knowledge* emphasises the importance of combining content knowledge (e.g., knowledge about the subject matter, concepts and theories) and pedagogical knowledge (e.g., knowledge about ways of learning and teaching, as well as methods of assessment). To this framework, Koehler and Mishra (2008, 2009) have added a dimension called technology knowledge (use of technology in specific content areas), and talk about *technological pedagogical content knowledge*. The technological facet of teacher qualification can be seen as central, as the new national core curricula in Finland (FNBE, 2014a, 2015) accentuate the importance of information and communication technology (ICT) skills (see also Tuomisto, Aksela & Jääskeläinen, 2015).

Mikkola (2012, p. ix) also underlines the moral and social dimensions of teacher qualifications. She mentions four different sub-areas: content knowledge, expertise in learning and teaching, social and moral competence, and the multifaceted skills that are involved in practical school work. In her research, Niemi (2011, 2015) has drawn attention to the importance of teachers' competence in co-operation, collaboration and networking both within and outside of their school community, and stated that this competence needs developing both in pre-service education and in in-service training.

The European Commission (2012, p. 61) states with reference to an earlier policy document that "[i]mproving the quality of initial teacher education and ensuring that all practicing teachers take part in continuous professional development has been identified as key factors in ensuring the quality of school education". As Niemi (2015) remarks, teachers' professional development should be seen as a continuum starting from pre-service education, continuing through the induction phase and going on during the whole career (see also Feiman-Nemser, 2001). This continuum reflects a holistic approach in education, a view that emphasises the principle of lifelong learning and development (see Niemi & Isopahkala-Bouret, 2015, p. 133). During the last few years, the focus has been on different forms of mentoring during the induction phase (Heikkinen, Aro & Korhonen, 2015; Niemi & Siljander, 2013; on development needs concerning in-service training, see e.g. Niemi 2015, p. 284).

Recently the trade union of teachers in Finland, OAJ (2016; HS 5.8.2016), has taken up the current situation where just over half of teachers get in-service training every year. It has also stressed the importance of a *development plan* for every teacher in order to safeguard that teachers get the training they need for their professional development. The development plan is a document designed

by the FNBE to be used in discussions between a teacher and the school principal. In this plan, they can document the teacher's strengths and development needs as well as plans for further training.

Also, teachers of Swedish need in-service training because of the new national core curricula. Both curricula (FNBE, 2014a, 2015) emphasise students' active role, joy of learning, curiosity and playfulness/games, working together, using experiential and activating methods, versatile (predominantly formative) evaluation methods, ICT in learning, trust in own abilities, and courage to use languages. They also demand more co-operation between teachers of different subjects and emphasise interdisciplinarity. Students are seen as active agents, and learning as interaction. In the present situation, many class teachers who start teaching Swedish in grade 6 have expressed a need for more training (for more information on strengthening the professional development of teachers of Swedish, see Rossi et al., 2017).

3 Exploratory practice as a way of analysing data

3.1 Method

We have analysed our data by using *exploratory practice* (Allwright, 2003; Allwright & Bailey, 1991). This method – which in fact is a mixture of different methods – combines research, teaching and learning. It involves, e.g., analysing practice, listening to participants, and continuously reflecting on goals and means, in other words: taking into account the whole process. The method was presented in 1991 as *exploratory teaching* (Allwright & Bailey, 1991). According to Allwright (2003), its central idea is to tighten the contact between pedagogy and research. It often takes as its starting point a problematic issue that has to do with teaching and learning. The method is not primarily about finding a quick-fix solution to a problem, but a cyclical process that aims to gain a deeper understanding of the nature of phenomena connected to teaching and learning. Through discussions and reflections on the activity in question, researchers try to improve teaching and learning, as well as to enhance professional development, both at the level of the individual and at the level of the community. The process works best in a good collegial environment where discussion and reflection are part of the everyday activity. If there is a need to change something in a situation, first it must be understood what the situation is all about and what kind of a change is needed. Sometimes the change can mean a new way of doing things, but it can also mean a new way of interpreting the situation. (Allwright, 2003.)

Educators and participants have a chance to discuss relevant questions together, which gives them an opportunity to learn from each other and to develop a new understanding of their everyday practice. Exploratory practice is in many respects similar to action research, but it is more focussed on reflection and an attempt to understand a phenomenon than trying to find solutions to problems (see also Hanks 2015a, 2015b).

In our own research, we have relied on the principle of triangulation in analysing the data. The two researchers have worked with the data at times independently, at times together, always making sure that we agree on our interpretations. We have used mainly qualitative thematic content analysis (e.g.,

Miles & Huberman, 1994; Schreier, 2014; Tuomi & Sarajärvi, 2002), but complemented it to some extent with quantitative data (e.g., when analysing the feedback from participants). The four educators, together with the three trainees, have discussed different aspects of the process at several evaluation meetings. Also, when analysing the data and writing this paper, the two authors have had regular research meetings and collegial writing sessions in which the focus has been on reaching a mutual understanding of different aspects of the phenomenon.

3.2 Data

We began our research process at the beginning of 2014, six months before the first project actually started. During this initial phase, we read a large number of research reports, articles and other scholarly publications. We also examined the national core curricula and looked at several reports by the Ministry of Education and Culture as well as by the Finnish National Board of Education.

Even in the planning phase we started working according to the principles of exploratory practice, and decided to use as our data everything that was connected to the projects: e.g., planning and evaluation meetings, data gathered from course days, work under distance periods, course participants' written and oral tasks, group discussions and all the feedback we got during and after the courses (see Table 2 for a more exact description). We have been careful to make all data anonymous, in order to make sure that neither the participants nor their school communities can be recognised.

Table 2. Data.

Type of data	**Description of data**
Discussions during planning meetings and evaluation sessions	- notes from 19 meetings
Discussions during the course days (7 courses, i.e., 14 course days)	- between the four teacher-researchers - between teacher-researchers and course participants - between participants
Discussions with stakeholders during the projects	- 8 external expert lecturers
Digital supervision and feedback	- by the teacher-researchers during the 7 one-month distance periods
Researchers' written data	- notes from the course days - planning notes - funding applications - intermediate and final reports to the FNBE - notes made at two conferences (PedaForum, 2015; CoDesigns, 2016), based on listeners' comments regarding our presentations
Intermediate feedback	66 (34 + 32) answers
Final feedback	181 (110 + 71) answers, with summaries from all seven courses
Course tasks	- written tasks: pre tasks (by all 203 participants) & lesson plans (28 group tasks) & solutions to PBL-cases (9 group tasks) - oral presentations connected to the written tasks (28 + 9 group tasks) - 76 development plans during Project 2

The first of the projects was implemented in 2014–2015, and consisted of four courses, and the second in 2015–2016, which comprised three courses. In all, the courses had 203 participants (125 + 78) from different parts of Finland. The projects were preceded by a six-month planning period, and followed by an equally long evaluation and preliminary research period afterwards. The whole process included continuous evaluation by the educators, participant feedback during and after the courses, as well as numerous collegial discussions between the educators during both projects.

Every course consisted of a written pre-task, two whole course days (Fridays or Saturdays, from 9 am to 4 pm) in Helsinki, individual and group work during the one-month distance periods, as well as oral and written tasks, discussions, short presentations and feedback sessions during the course days. Blogs were used as digital learning environments (see Table 3).

Table 3. The two projects of the study.

	Project 1 (2014–2015)	**Project 2 (2015–2016)**
Number of courses	4 similar courses	3 similar courses
Scope	1 ECTS/course; 1 month	2 ECTS/course; 1 month
Total number of participants	125	78
Main aims concerning teaching and learning of Swedish	- Use of motivating teaching methods - Pedagogical use of ICT - Didactic methods suitable for elementary school students (esp. 6th grade) - New ideas from best practices in language immersion in order to make learning motivating - Better communication strategies for teachers and students - Teacher co-operation - Activation of participants' oral skills in Swedish - Encouraging participants to use Swedish as much as possible in their own teaching - Presenting the new national core curriculum for basic education	- Development of teachers' professionalism based on participants' individual needs - Support to teachers in making teaching more motivating - Giving teachers tools to meet demands in everyday work - Active reflection on the role of evaluation, gamification, digital environments, and speech communication in language teaching - Teacher co-operation - Activation of participants' oral skills in Swedish - Encouraging participants to use Swedish as much as possible in their own teaching - Presenting the new national core curricula
Working methods and tasks	- Pre-task - Active participation during course days (individual and group work, discussions) - Group task during the one month distance period - Course blog	- Pre-task - Active participation during course days (individual and group work, discussions) - Group task during the one month distance period - Development plans - Course blog

The course days were practical and utilised the existing skills and knowledge base of the participants. The idea was to share best practices within the groups and also with the participants' colleagues. The focus was on applying theory into practice and sharing well-functioning teaching methods. The participants were given short introductions to, e.g., the new national core curricula, multimodality, language immersion (see Björklund, 2012), experiential and active learning methods, identity construction, and central aspects of speech communication. During the later project, inquiry-based and problem-based learning (PBL), evaluation, motivation and games in learning, as well as interdisciplinary learning were also taken up, mainly because these are focused on in the new national core curricula. The starting point of inquiry-based or problem-based learning is that learners themselves have to figure out and discuss what they are interested in and what they want to start studying together.

During the distance periods, participants prepared either short teaching sessions or a presentation of their PBL group work that were then demonstrated during the second course day. The idea was to make visible what had been learnt during the course. Participants received feedback from each other and from the educators. Feedback from previous courses was used to make following courses even more relevant to the participants. As mentioned earlier, this feedback was also used as data for our research.

Knowledge sharing was at the heart of the education; participants were encouraged to discuss course contents with their colleagues, and we as educators have seen it as our responsibility to spread information about the whole process in different contexts, e.g., at various conferences and through scientific articles in journals.

4 Challenges encountered during the process

In this section, we describe some of the challenges we encountered during the practical implementation process, i.e., during the seven courses. We give some examples from our data, mainly from anonymous feedback from course participants (intermediate feedback = IF; final feedback = FF), and from educators' notes as well as from discussions during and after the course days. All comments and notes are translated from Finnish to English.

4.1 Challenges connected to teacher co-operation

Finnish teachers are well-educated, motivated and enthusiastic about their work. However, the ethos of working and managing alone has traditionally been strong in Finnish schools (e.g., Heikkinen et al., 2015). In this way, both teaching and learning languages can be seen as a lonely endeavour, in which co-operation and communication are not necessarily seen as central elements (Kalaja, 2015; Kalaja, Alanen & Dufva, 2008). There are differences between schools in how much teachers collaborate and co-teach their lessons. As Finnish teachers work mainly on their own, and rarely get feedback from other teachers, there is a need for in-service training models that strengthen collegiality. (Hellström, Johnson, Leppilampi & Sahlberg, 2015; OECD, 2014.) In addition, the new national core curricula emphasise interdisciplinarity and thereby demand more co-operation from teachers. Co-operation between class teachers and subject teachers can also be seen as important, especially concerning teaching of Swedish in grade 6 (Rossi et al., 2017).

It has come up in research (e.g., Rytivaara, 2012) that well-functioning co-teaching is very beneficial for teachers' everyday work. It makes it possible to share and co-create information, and supports teachers in their work. This increases teachers' wellbeing, which naturally affects how well they cope in their work. Similar results were observed in the co-teaching pilot project in Helsinki (Ahtiainen, Beirad, Hautamäki, Hilasvuori & Thuneberg, 2011): even if co-teaching initially means a lot of work and new ways of doing things, teachers see it as rewarding and useful.

During the last few years, new demands have been placed on in-service training: the education should influence not only participants but also their work communities. Kangas, Kopisto and Krokfors (2016), among others, hope for a new kind of education and emphasise that its effects should go beyond developing participants' skills and competence and reach also their school communities. This dimension was also mentioned in a co-ordination project for school personnel (FNBE, 2014b, p. 76).

It should be pointed out, however, that the situation concerning teacher co-operation and in-service training may not be as bad as it may look at first sight. Firstly, as Niemi (2015) points out, Finnish teachers do a lot of planning with their colleagues and the school principal in their school community when designing their local school curriculum on the basis of the national core curriculum. Secondly, teachers participate in "projects that are not purely traditional in-service training but more school-based development projects" (p. 284), and "[s]chool development cannot be separated from teachers' development" (p. 291). These kinds of school-based projects are not usually seen as in-service training as such, neither by teachers themselves nor by educational authorities like the Finnish National Board of Education.

It is often emphasised in the research literature that learning happens in co-operation and that skills in interaction are among the central competence of teachers (Lonka & Vaara, 2016; Soini, Pietarinen, Toom & Pyhältö, 2016). One of our main goals in the two projects was to increase shared inquiry and teacher co-operation both during and after the training (see Table 3). Participants experienced the collegial working methods during course days as useful, and they appreciated the possibility of sharing experiences and ideas with each other:

> "The best thing for me was meeting colleagues, discussing with them and in that way getting new practical ideas for my teaching" (Project 2: IF).

However, co-operation through the Internet was seen as challenging:

> "It was difficult, we did not know what to do, the members of the group live far away from each other, our work as teachers is very hectic at this time of the year, and some of us cannot even use Google Docs or Drive" (Project 1: IF).

It also proved to be difficult to transfer collegial working methods to participants' own school communities. This was a theme we as educators discussed a lot during the training. On several occasions, we reflected on how to make it easier for the participants to involve also their own school communities (principals and colleagues) in the process (Educators' notes). Even though we emphasised the importance of collegiality and encouraged participants to discuss course contents with their colleagues, the feedback we got showed that our attempt was not totally successful. The marks we got for "developing own

working community" were in fact not bad (3.0–3.4, on a scale 1–5), but still considerably lower than for the other questions. This is also something that has bothered us a lot afterwards. Boyle et al. (2004) noticed that less than one-third of teachers increased their co-operation as a result of in-service training. Their assumption was that teachers already felt they were working in co-operation. Our own assumption, based on discussions with participants during our projects, is that it is not always easy to increase co-operation in Finnish school communities. Both money and time is needed, as new ways of working are to be launched and made a part of everyday practices. In addition, not all teachers see it as possible to co-operate and share ideas with colleagues from different subjects.

As Boyle et al. (2004) state (with reference to Loucks-Horsley, Hewson, Love & Stiles, 1998) teachers see as useful activities in which they have the opportunity for co-operating with other teachers, sharing knowledge and experiences, and working towards a common goal. In our own projects consisting of mid-length (Tan, 2014) courses, we aimed at using these kinds of practice that have been found useful. It is central that participants get the chance to co-operate, to share their knowledge, ideas and experiences during in-service training. In busy everyday work, it is not always easy to reserve time for collegial discussions, problem solving, and feedback sessions.

4.2 Challenges connected to traditional vs. modern teaching and learning methods

4.2.1 Insecurity and negative feelings caused by new methods

A group working under the Ministry of Education and Culture has written a report on Swedish teaching, and states that on the basis of research, the motivation to study Swedish is affected, e.g., by teachers and teaching methods, as well as the students' own success in Swedish. What also affects study motivation positively is the experience that studying is meaningful, important and challenging in a good way. (Ministry of Education and Culture, 2012, p. 41; see also Dörnyei & Ushioda, 2013.) One possible solution to the afore-mentioned issues could be a new approach to teaching and learning.

As the target group of our training was teachers of Swedish, especially those who start teaching the language from sixth grade, we used methods that have been seen as efficient in increasing students' enthusiasm and motivation to learn the language and in that way also in enhancing their school satisfaction. We wanted to give participants the opportunity to test these methods themselves in order to see how they felt in practice. The basis of our projects was the idea of *learning by doing* (Dewey, 1938/1997), and we therefore emphasised participants' own activity and agency in learning (see also Feiman-Nemser, 2001). We wanted to present new and motivating methods, not only by describing and discussing them, but by using them ourselves during the training. In practice this meant, e.g., introducing language immersion as a way of increasing oral communication; practicing activating teaching methods (including physical activity, music, and role plays); applying problem-based learning that required co-operation and interaction between teachers; and using digital learning environments and games (Kahoot, Quizlet, QR codes). We also encouraged collegial discussions and a reflective attitude concerning the working methods. In this way, we wanted to help teachers of Swedish to develop their teaching, and to find new ways of making their subject enjoyable and motivating for all students.

Not all teachers seemed to have the courage or the enthusiasm to apply these ideas in their own learning contexts. Instead, some of the upper secondary school teachers saw these methods as better suited for comprehensive school. It looked as if they experienced these methods as fun, but of no use for learning. In addition, some teachers wanted to have ready-made solutions to every kind of teaching context, and were not so willing to reflect on more general principles behind the methods. Giving quick-fix solutions, especially solutions that would have been new and relevant to all participants, was of course impossible, as there are innumerable teaching contexts and situations. These teachers seemed to have an instrumental interest in the training, which is of course natural and understandable. However, as Kelchtermans (2009) writes, both teacher education and in-service training should arrange opportunities for "discomforting dialogues" (p. 270); through deep reflection, it is possible for teachers to develop their critical thinking and to understand why they act in certain ways in different situations, thereby deepening their self-understanding and developing their professionalism (pp. 267–270).

During the whole training process, we felt we were balancing between a modern view of learning on the one hand and participants' expectations on the other hand. These expectations represented a rather traditional (teacher-centred) view of learning and teaching, at least to a certain extent. Teachers' own schooling affects their development as teachers a lot (Feiman-Nemser, 2001, pp. 1014, 1016; see also Korthagen, 2004, p. 81; Niemi, 2011, p. 49), which may mean for example that they prefer methods they are familiar with from their own school time.

Although many participants were quite eager to share ideas and knowledge with their colleagues, there were also participants who expected a more teacher-led approach: "I would have seen lectures given by experts as more useful" (Project 2: FF). This may have been connected to participants not seeing themselves as learners who could use this opportunity to transform their former beliefs of teaching and learning (Feiman-Nemser, 2001, pp. 1025–1026). The methods we used were student-centred and activating, but some of the participants expected a ready collection of good practical ideas, or a "toolkit" for teaching. We came to the conclusion that some teachers still find it more natural to be taught than to act as active constructors of knowledge themselves (see Feiman-Nemser 2001, p. 1041), at least in the context of (voluntary) in-service training:

> "What a lamentable working method this PBL was. The whole morning was spent on collecting OLD ideas and what we already KNEW about the matter. I do know all my old ideas, and the others seemed to have the very same old ideas. I had come to get NEW ideas and inspiring working methods. I did not get any of them." (Project 2: IF.)

Here a participant seems to be very upset for not getting her toolkit; for her, talking to other participants and reflecting on what was previously known about the theme was nothing more than a waste of time.

Even if we tried to describe the goals, course contents and working methods as clearly and openly as possible when advertising the training, some participants' expectations and our methods did not always meet. Participants commented that our methods were useful, especially as the new national core curricula take up the use of such methods in teaching and learning. Thinking that something is useful, however, does not mean the same thing as seeing it as

easy or pleasant. Some participants experienced student-centred methods as confusing, and felt disappointed when their expectations concerning a more traditional way of teaching were not fulfilled. Others, on the other hand, were comfortable with and already good at applying activating methods also in their own teaching. Attitudes towards inquiry-based learning seemed to vary dramatically among participants: some knew the method and liked it, others either did not know about it or disliked it. One of the big challenges was that learners had to put up with uncertainty and even chaotic feelings, particularly at the beginning of the learning process:

> "In the beginning, the method felt confusing, but looking back, it was quite useful" (Project 2: FF).

With hindsight, we have come to the conclusion that we should have introduced the theoretical side of inquiry-based learning *after* the group task, not before it. Giving practical instructions before the task would have been sufficient, and the theory could have been presented afterwards. In that way, we could have used the whole process as an example of inquiry-based learning, which might have made the situation less challenging for the participants (Discussion between educators).

There were participants who did not want to use the method – or scholarly literature – in their group task. Instead, they tried to manage by using lay knowledge or only their previous experiences. Personal experiences are of course relevant, but they should be mirrored and evaluated against scientific results. Even if critical reflection and research orientation are emphasised and applied in Finnish teacher education, they become weaker during work experience. Yet, as Kelchtermans (2009, p. 270) states, "without deep reflection, one's personal scholarship cannot be developed, nor the scholarship of teaching in general". It is central for teachers to understand and endorse the importance of a reflective attitude and a research orientation, which is also stressed in the new national core curricula (Educators' notes).

4.2.2 Problems with passivity

An additional challenge that is partly connected to what is written above, is the passivity of some participants. As often is the case in group work, there were a couple of participants who put very little effort into their group task during the distance period. It is of course natural that people are different and that not everybody is equally active. However, in some cases it became evident that other group members felt disappointed and even a little irritated because of some group members' negligence: "there was a member in our group who did not participate at all" (Project 1: FF). These problems were discussed within the groups in question.

The problems with passivity may have been caused by group size, at least partly. The groups we used, had between three and nine members. Even if groups of nine are relatively common in problem-based learning sessions, they proved to be too big for this kind of training, especially when the groups worked through the Internet during distance periods. According to the feedback we got, teachers experienced groups with more than five members as problematic. It is easier to remain passive in a bigger group, especially if the division of work in the group is not clearly defined in advance. On the other

hand, there were also groups where one or two of the members took much more responsibility than others for the end result and worked very hard for the common good, not because they had to, but because they were so enthusiastic about the whole thing. This was naturally appreciated by the other members, and often resulted in more enthusiasm in the whole group. During the second project, one of the groups had great problems with getting started with their group task, but eventually managed to present a good piece of work, partly as a result of intensified digital supervision by one of the educators (Meeting notes).

Activity is of course affected by lack of time and busy schedules at work. Due to busy schedules, many teachers commented on the difficulty of combining everyday work and in-service training, and talked about stress and tiredness. Teachers' busy schedules and the stress they experience at work make them long for simple solutions even to complex problems (also Kelchtermans, 2009, p. 268). Teachers work hard and they take their work seriously. Especially during the spring term, teachers are involved in numerous tasks that keep them busy from early morning till late in the evening. Teaching, evaluation, different kinds of projects, excursions, school plays and meetings with parents, among other things, take a lot of time and energy: "teachers have a lot of stress also otherwise in the spring" (Project 1: FF). This might have been one of the reasons for some participants' passivity in group work. In spite of the stress and tiredness they felt, teachers wanted to participate in these courses. Many of them had been waiting for the opportunity to attend for a long time, and now they did not want to miss the chance.

4.2.3 Planning appropriate activities and course tasks

During the course days, we noticed how important physical activity and motion is for concentration and motivation: if a course day lasts several hours, some physical exercise is needed in order to enhance concentration and motivation. Small things, like lunch and coffee breaks, proved to be important for the whole process. These not only reinvigorated and refreshed the participants but also offered them welcome opportunities to share experiences informally in a stress-free atmosphere. The participants got to know each other better during these discussions, which made co-operation easier and more relaxed. This was clearly noticeable during all courses: during the coffee breaks, participants seemed to have fun together, laughing, joking and chatting about their experiences (Educators' notes).

It can be stated that a significant condition for having motivated participants is having versatile activities and an appropriate pace that suits the situation and the learning context. A lot of things can be planned, but there are always situations that require flexibility and new ways of doing things. This kind of flexibility is made a lot easier when the educators work in close co-operation and have an open collegial relationship with each other, which was the case during our projects.

Both initial teacher education and in-service teacher training in Finland are research based, which means, e.g., that combining theory and practice in a meaningful way is central. Theoretical knowledge without application or a relevant context is often seen as unnecessary and remains disconnected in participants' minds – and in their practice (also Feiman-Nemser, 2001, p. 1041). On the other hand, a new practice without any theoretical base is easily forgotten and replaced by old familiar practices. For this reason, we continuously monitored the ratio between practical tasks and theoretical

knowledge, and changed them when needed. According to the feedback we got, our participants were especially interested in getting appropriate information that could be applied in their everyday work, as well as useful ideas that work in practice. Then again, many teachers told they appreciated getting new theoretical knowledge. As teachers' working days are busy, there is not so much time to search for new information actively. This feedback was discussed by the educators and taken into consideration during the projects.

The group task was sometimes seen as a challenge: "some of us experienced the group task as difficult" (Project 1: FF). One of the participants wrote:

> "The implementation of the group work was not so successful, we had members who lived in different parts of Finland and were motivated in different ways – the idea was good, but it would have been more suitable as pair work" (Project 1: FF).

In planning course tasks, educators should consider carefully what kinds of tasks could be relevant both for the participants and for a larger teacher community. If we want in-service training also to have an effect on participants' school communities, it might be a good idea to engage participants in small projects that entail focusing not only on their own unique development needs but also on those of the school community. As time is limited, the tasks should be well defined and possible to accomplish during the time reserved for them.

4.2.4 Challenges with pedagogical ICT use

According to several studies, Finnish teacher education does not pay sufficient attention to the pedagogical use of digital technology, and schools are often unable to make full use of the relatively good ICT equipment at schools. On the other hand, it must be noted that there are big regional differences between schools in how well teachers are able to use technology. (Kankaanranta, Mikkonen & Vähähyyppä, 2012; Tanhua-Piiroinen et al., 2016.) Problems with ICT facilities and ICT use at schools are of course not only a Finnish dilemma. The final report of ESLC (European Commission, 2012, pp. 55–56) takes up differences between educational systems in the availability of virtual learning environments, appropriate software and teachers' reported use of ICT in teaching.

Teachers' skills and attitudes are strong predictors of their use of ICT in their teaching (Ertmer, Ottenbreit-Leftwich, Sadik, Sendurur & Sendurur, 2012; Tuomisto et al., 2015, pp. 768–769). In international comparison, Finnish teachers' attitudes towards the usefulness of ICT in promoting learning have been rather negative (European Commission, 2013; Fullan, 2010). However, according to a new report, attitudes are becoming more positive. Hietikko, Ilves and Salo (2016, p. 8) state that over half of teachers see digitalisation as inspiring, and think it will renew their pedagogical thinking and their teaching methods. As the report affirms, big differences and shortcomings in teachers' pedagogical ICT use can slow down *the digital leap*. The concept refers to the need to provide proper ICT skills and environments for all schoolchildren. It is clear that teachers need support and practice in using ICT in a pedagogically relevant way.

We noticed that our course participants were very different in their attitudes towards and skills in using digital technology. There were those who used new technologies daily, with great enthusiasm, and there were those who were unaccustomed to using new technologies in teaching and were unfamiliar even

with frequently used technical appliances. As one of the participants wrote, "the members of my group use only e-mail" (Project 1: IF). On the one hand this was a challenge, but on the other hand it was a perfect learning experience when teachers got support and help from their colleges.

ICT can be used in language teaching to enrich teaching practices and support learning. The applications of social media that we used in our training gave participants examples of how social media can be utilised in teaching. The training was implemented as a form of *blended learning* (see Joutsenvirta & Kukkonen, 2010). Our aim was to make teachers' attitudes towards pedagogical use of ICT more positive, and at the same time to strengthen their practical skills in this area. Sharing ideas and learning best practices from others were seen as important with regard to their own teaching. Using ICT in teaching and learning is also emphasised and encouraged in the new national core curricula for basic and upper secondary education (FNBE, 2014a, 2015) and in the policy documents of the European Commission (e.g., 2012, pp. 55–56).

Despite our good intentions, using technology was not always easy. One of our trainees wrote in her notes (Project 2, course 3, day 1):

> "The groups started working well. Some of the participants were missing from the g-mail-list, because their messages had not come to my e-mail. So, I added these participants to their own docs-groups. Google Drive works in a funny way with iPads … We could have been better prepared for this, but on the other hand, there were no such problems during the previous course."

4.3 The need to develop teachers' language skills

Teachers are a heterogeneous group, with different personalities, different professional backgrounds, different experiences, expectations and skills. This applies also to teachers of Swedish and their language skills.

The language skills of the participants were mainly very good. However, there were those who did not teach Swedish at all while participating in the course, and some of them would have liked to have even more practice in oral production: "more training in pronunciation" (Project 1: FF); "I hope there will be language courses for teachers" (Project 1: FF). Because of this, we encouraged them to become more active themselves and have their teaching sessions during the course in Swedish. There were also participants who described how their (earlier quite fluent) language skills had deteriorated because they had not had the opportunity to use the language in a versatile way. This was the case if a teacher for example had been teaching elementary courses for years in a region where Swedish is not heard or seen at all in everyday life. Some participants were class teachers who had only the Civil Service Language Proficiency Certificate or had not taught Swedish before, and who felt uncertain about their language skills. Understandably, their identity as class teachers was stronger than their identity as language experts or teachers of Swedish. In their feedback, some of them expressed a need for practical language training: "learning Swedish to be able to teach (I do not teach Swedish yet)" (Project 1: FF).

As many teachers expressed a strong wish to brush up their Swedish, it would be a good idea to arrange in-service courses completely in Swedish. One of our aims was to activate participants' language skills (see Table 3) but we used both Swedish and Finnish, according to task and situation.

5 Discussion and conclusions

The teachers' own trade union, OAJ, emphasises the importance of professional development, but also notes problems in the availability of in-service training (HS 5.8.2016). According to the feedback we got from participants, the need for more in-service training is evident (see also Niemi & Isopahkala-Bouret, 2015, p. 142; Rossi et al., 2017). Teachers said they need and want more education and stated that there is far too little relevant in-service training offered for teachers of Swedish.

During the research process, we used *exploratory practice* as a tool for development and research. We used it to identify challenges in in-service teacher training at the present, and in that way, we searched for keys to successful high-quality in-service training. At the same time, we reflected on our own double role as educators and researchers; being a researcher entails being a learner at the same time.

Well-functioning and useful in-service training requires a thorough examination of the needs that the training is supposed to be an answer to. In that way, it becomes possible to establish the main goals that must then be kept in focus throughout the training. In our two projects, the issues presented in Section 2.3 affected the aims and implementation of our courses. However, not even the most systematic planning phase can guarantee a totally carefree process, which became very clear during our projects. We encountered several new challenges, some of them (at least partly) understandable and even expected, others more unpredicted. These new challenges (presented in Section 4) included challenges connected to (1) teacher co-operation, (2) traditional vs. modern teaching and learning methods (insecurity and negative feelings caused by new methods, some problems with passivity, planning appropriate activities and course tasks, and challenges with pedagogical use of ICT), and (3) teachers' language skills.

During the process, we identified several factors that were beneficial for the participants' learning and development, and came to the conclusion that at least some of the challenges could be overcome by taking into consideration a few basic factors. Possible solutions are presented in Table 4.

Table 4. Suggestions for overcoming challenges in in-service teacher training.

Challenge	**Solution**
Outdated methods	- Observing educators' and colleagues' use of new methods → using them in own teaching → may increase school satisfaction - Possibility to test some new methods in a relaxed atmosphere
Insecurity and negative feelings caused by new methods	- Introducing the methods and the process theoretically *after* they have been used in practice - More information about the methods when advertising the training - Explaining the importance of deep and critical reflection for teachers' self-understanding and professional development
Passivity in group work	- Small groups - Clear division of work
Problems with pedagogical use of ICT	- Support from colleagues - Discussions about best practices - Blended learning

Insufficient language skills of teachers	- Courses totally in Swedish - Using Swedish as a working language - Principles of language immersion - Focus on oral communication
Fragmentary in-service training	- Development plans used as a tool for identifying development needs and for long-time planning of in-service training
Teachers working by themselves	- Better teacher co-operation - Broader teacher networks - Informal discussions (during coffee and lunch breaks etc.) - Linking course tasks to teachers' everyday work and their school community

Through our own example, i.e., through the methods we used during the whole training, we wanted to help teachers of Swedish to develop their teaching, to become active agents in their learning, and to find new ways of making their subject enjoyable and motivating for their own students. We had a strong focus on teachers' professional development, as we reflected on the clear connection between the above-mentioned challenges and teachers' professional development needs.

Based on our research, we want to emphasise the importance of research-based planning and implementation of in-service training, as well as a genuine connection between in-service training, teachers' everyday work and school reality. We thereby agree with Feiman-Nemser (2001, p. 1042) who states that "professional development should be built into the ongoing work of teaching and relate to teachers' questions and concerns". Professional development should not be seen only as a process of personal development but as a broader phenomenon concerning the whole community. According to Niemi and Isopahkala-Bouret (2015), the biggest development needs lie in teachers' co-operation within and outside the school community; this has been taken up both by student teachers and by newly qualified teachers.

Even if in-service training is often blamed for being fragmentary, we have noticed clearly during our projects that teachers have different professional development needs. This means that different kinds of training are needed. However, in-service training should be planned and implemented systematically, according to development plans made for every practicing teacher and based also on the needs of the school community. Without a proper plan, in-service training can be experienced as being fragmentary, non-systematic and even unnecessary.

It is also important for in-service training to support teachers in preserving a research-based attitude in their work, so that they can maintain the ability and willingness to look at questions concerning teaching and learning more deeply, instead of searching for "toolkit-solutions". This kind of attitude is central also – or perhaps especially – in the hectic and demanding working life of today. We see teachers as important developers of teaching and learning in society (see also Niemi, 2011, p. 47). They need a research-based attitude in order to maintain their autonomous posture and fulfil the requirement of critical thinking also in the future.

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