A Collaborative Design for a Finnish Teacher Education **Development Programme**

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Abstract

This paper describes a collaborative design for the Finnish Teacher Education Development Programme in a decentralized education system where teachers, schools, municipalities and universities have high autonomy. The development programme was designed by 70 experts from the universities and stakeholders. The research outcomes related to teacher education were described, and brainstorming related to the renewal of teacher education was organized at the national level. The brainstorming was aimed at capturing the opinions of teacher educators and teachers. Moreover, several meetings were organized all over the country. The development programme set out three strategic competence goals for teachers' pre- and in-service education and continuous life-long professional learning: a broad and solid knowledge base, competences for generating novel ideas and educational innovations and competences for developing teachers' own expertise as well as their schools. Furthermore, the development programme included six concrete strategic guidelines, which helped determine the direction for the development of teacher education.

Key Words: Teacher education, education policy, teacher standards

Introduction

A key goal of teacher education in all countries is to educate high-quality teachers through quality post-secondary programmes and then support them in their professional learning. Teacher quality is typically measured by analyzing the knowledge base of a professional teacher (input approach) or the outcomes of the teaching and learning process, such as students' learning outcomes as indicated by test scores or graduation rates (output approach) (Goe, Bell, & Little, 2008; Stronge & Hindman, 2003). However, Akiba and LeTendre (2018) argued that the whole concept of teacher quality is controversial and difficult to define.

This paper describes the collaborative design of the Finnish Teacher Education Development Programme or national level aims for teacher education in a decentralized education system where teachers, schools, municipalities and universities have high autonomy. In this decentralized context, a professional teacher is supposed to

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have a versatile professional knowledge base or versatile competences, allowing him or her to act as an autonomous professional (Westbury, Hansén, Kansanen, & Björkvist, 2005). This knowledgebase supports the planning, organization and evaluation of one's own teaching, students' learning process and their learning outcomes. The knowledge of a professional teacher also includes the shared understanding of professional values and ideology (ethics code) (Verloop, van Driel, & Meijer, 2001); social and individual elements, such as strong institutionalization of an occupational group, including skills for collaboration and networking (Malm, 2009); and skills needed in self-regulation and continuous professional learning (Freeman & Johnson, 2012).

Teacher professionalism does not only refer to the competence of individual teachers but also to their status and role at school; moreover, professionalism is more broadly based on the cultural and education policy of society (Müller, Norrie, Hernández, & Goodson 2010). In a similar way, Akiba and LeTendre (2018) argued that teacher quality depends on the organizational structure and culture of the schools, the support systems and ongoing professional development. Therefore, teacher professionalism also includes the idea that education authorities and school-level leadership allow teachers to be autonomous professionals without heavy control, such as inspections or centralized testing. Therefore, the work of a professional teacher is complex and not easy to describe as a list of competences at the national level of teacher standards (Hargreaves, 1996; Evans, 2008; Evetts, 2012; Guerriero & Deligiannidi, 2017).

The aims for a quality teacher are typically described in national or state-level documents, often called teacher or teacher education standards or strategies. They are documents that describe the competences and values of a quality teacher or what a teacher should know and be able to do (Cochran-Smith, 2006; Ingvarson, 2002; Torrance & Forde, 2017; Révai 2018) or the outcomes of teacher education (Tellez 2003). The outcome view also refers to the assessment of the competences of a graduating student or the assessment of teachers' teaching, especially in the countries that follow the 'output' model in education. Moreover, the introduction of standards could improve the performance and standing of teachers; and standards contribute to the ongoing professional learning of teachers (Sachs, 2003). (Sachs, 2003).

For example, the Australian Professional Standards for Teachers introduces competences, which are interconnected, interdependent and overlapping (APST, 2014). The standards are grouped into three domains of teacher competences: professional knowledge, such as knowledge about students and how they learn and knowledge about content and how to teach it; professional practices, which include planning and implementation of effective teaching and learning strategies, creating and maintaining a supportive and safe learning environment, assessing, providing feedback and reporting on student learning; and professional engagement, which includes teachers' own engagement in professional learning and professional engagement with colleagues, parents and the community. Another example of a teacher standard is the UK Teachers'

Standards (Department for Education, 2011), which emphasizes professional knowledge and practices. Moreover, the UK standards expect that teachers demonstrate consistently high standards of personal and professional conduct.

The focus in Australian and UK teacher standards is on high-quality teaching and learning as well as on teachers' professional learning and professional engagement with colleagues and parents. Caena (2014) recognized a similar description of competences to that of the Australian and UK teacher standards in her analysis of various national-level teacher competence frameworks or strategies or standards. Furthermore, she recognized, in various standard competences, reflective and research skills; critical attitudes towards professional practice and innovations; and positive attitudes and commitment to ongoing professional development, collaboration, diversity and inclusion (see also European Commission, 2013; Feiman-Nemser, 2008). Although Caena (2014) mentioned teachers' ability to evaluate innovations critically, she did not recognize teachers' own creative competence for innovating or developing new pedagogical innovations on their own.

Preparing standards, making reforms or creating development programmes in teacher education are common tools for outlining the competences of a quality teacher and improving teacher education (Garm & Karlsen, 2004; Young, Hal & Clarke, 2007; Torrance & Forde, 2017). However, such standards, reforms or programmes are challenging to plan and implement; it is also difficult to engage relevant partners in collaboration or make a sustainable change in teacher education programs and practices. It is common that standards, reforms or development programmes are made by a small nominated group of experts. For example, Beach, Bagley, Eriksson and Player-Koro (2014, 167), based on their long-term policy analysis from Sweden, recognized that Swedish reforms are too strongly led by the governments alone.

In order to have success in the planning and implementing of a national-level strategies or reforms, OECD (Burns & Köster, 2016) recommended the following:

- Have enough time for planning and implementation of the strategy
- Engage stakeholders, such as providers of education and university personnel,
- a nd employ organizations to the design of the strategy
- Be in partnership with the teacher union and employ union members
- Strive for consensus in the design
- Use sustainable resources for the planning and implementation of the strategy
- Organize pilot projects and disseminate the outcomes of the pilots

Similar characteristics to OECD recommendations are described and discussed in several research papers. For example, Darling-Hammond (1999) analyses how teacher education policy aims should be designed and who should actively participate in this design. She especially analyses the role of teacher educators and teachers in the participation for professional standard-setting. In a similar way, Maviş, Çaycı and Arslan (2014) argue that both policy-makers and teacher educators should be active

in the design of teacher education aims and programmes. Collaboration, networking, sharing of ideas and discussion are emphasized in the design of teacher education aims or standards in several scholar papers. For example, Koenraad and van der Hoeff (2013) emphasize collaboration as being important in the planning of national strategies or programmes and in the implementation of them. Russell, McPherson and Martin (2001) argue based on a review of literature on reforms in teacher education that collaboration is important in the design of policy but also an important aim of teacher education. Collaboration in the planning of aims for teacher education is important in order to make the aims acceptable and support the implementation of the aims in teacher education programmes. For example, Koster and Dengerink (2008) argue that several professional standards describing competencies for teachers in secondary and higher education are not always considered fruitful by the relevant professional communities of teachers and teacher educators. Slater (2010) lists the key characteristics of collaboration in the context of improvement of education as follows: joint work or interdependence, parity or equality among participants and voluntary participation.

Plecki and Loeb (2004) argue that in addition to collaboration and networking, a deep understanding of 'good teaching', based on research on teachers, how teachers learn to teach, and who controls the teaching profession is needed. Research orientation is also important in the implementation of the aims. For example, Koenraad and van der Hoeff (2013) discussed the success in the development of ICT-related national aims for teacher education and implementation of these aims through inquiry-oriented pilots. Russell, McPherson and Martin (2001) argue based on a review of literature on reforms in teacher education that coherence is important in the aims.

The focus of this paper is the collaborative design of the national-level Teacher Education Development Programme or strategy in Finland. The implementation of the programme will be reported in a separate paper. The collaborative design approach was assumed to influence the design of the development programme, teacher educators' learning and the implementation of the programme, as Kitchen and Figg (2011), Maier and Schmidt (2015) and Burns and Köster (2016) have suggested. Engaging teacher educators and stakeholders increases ownership towards the strategy and help the implementation strategy, as Madalińska-Michalak, O'Doherty and Flores (2018) have emphasized in their editorial. Moreover, engaging schools and teachers in partnership with teacher educators has been recognized to be supportive for the development of teacher education (Williams, 2014). One main question concerning the design of the programme guides this descriptive study:

• How was the national Teacher Education Development Programme designed collaboratively?

Before we answer the research question, we will first describe teacher education and the characteristics of a professional teacher in the context of Finnish education.

Characteristics of a Professional Teacher in the Context of Finnish Education

Finland has never had teacher standards. Instead, it has national aims or strategies for teacher education in order to communicate the shared ideas and characteristics that are valued in the teacher profession. According to the Finnish input approach, professional teachers in Finland are educated at traditional universities in five-year master's programmes so that they may act as autonomous professionals (Darlington-Hammond, 2017). Moreover, the Finnish education environment, especially the collaborative preparation of local curriculums and classroom-level assessment practices, supports teachers to work as autonomous professionals in their classes.

Finland has never based its quality assurance on standardized testing, unlike countries following an outcome-based education model, nor has Finland used school inspectors since the beginning of the 1990s. The quality of education has been promoted through a decentralized approach that emphasizes national-level guideline-type strategic documents, such as framework curricula. Local curriculum processes have inspired and empowered teachers and principals to develop the local curriculum, to improve their own work processes and, moreover, to increase the quality of education overall (Holappa, 2007). However, sample-based monitoring, such as national sample-based subject-specific tests (e.g., Blömeke et al. 2018) or international sample-based tests such as PISA, are useful for monitoring the education system.

An essential characteristic of teacher education in Finland has been its emphasis on research (Westbury, Hansén, Kansanen, & Björkvist, 2005; Eklund, 2018). Following this perspective, student teachers learn both how to consume and how to to produce educational knowledge. This research knowledge is needed for broadly conceived local planning and the development of teaching and school practices, as well as for the assessment of teaching and learning. Consequently, teachers play an important role in this decentralized Finnish educational system.

Methodology

The description of the collaborative design of the national Teacher Education Development Programme is based on the documents, such as the notes, memos, commitments and statements of the different stakeholders, created during the years 2016–2018. The memos were written from the 12 full-day meetings of the entire forum, the seven regional meetings and the executive committee meetings. In the executive committee of 10 experts, there were three experts representing universities, four from the Ministry of Education and Culture and three from organizations of stakeholders. The executive committee met every month in a four-hour meeting, altogether 30 times, and discussed, for example, the outcomes of the literature review, policy documents of other countries and the brainstorming process and its outcomes. Moreover, the executive committee planned the forum meetings and wrote draft documents about what was discussed in the meetings. A memo was written for each meeting. Altogether, there

are 95 standard pages of memo documents, and each document was named following the format Memo of the executive committee meeting, DD/MM/YY. Moreover, one author of this paper made notes in all planning, executive board, forum and local meetings. In all, there were 68 note-type documents, each two to four pages long.

Corbin and Strauss (2008) describe document analysis as a systematic procedure fo reviewing or evaluating documents in order to elicit meaning, gain understanding, and develop empirical knowledge. Our aim was to acquire an understanding of the design process of the national Teacher Education Development Programme and collaboration during this process. Therefore, information and insights derived from the documents were used while describing the collaborative design process as described by Bowen (2009).

The information and insights were recognized in the documents through skimming (superficial examination), reading (thorough examination), and interpretation (Corbin & Strauss, 2008). The documents were read several times in order to recognize all notes related to design of the development programme. Specifically, it was aimed to recognize how the design process was supported by research literature and collaboration situations of various stakeholders and how the recognized challenges were aimed to be taken into account into account in the design. These three themes were the main categories in the analysis of the documents. However, the description of the design process is written in five chapters, for example "Challenges in Finnish education" and "Literature review on teachers and teacher education related research", which were recognized as important and independent views to the design of the development programme. The chapter "The Development Programme for Teachers Pre-, Introductory and In-service Education" summarises the key elements of the development programme.

Browen (2009) summarises the limitations of a document analysis, and, in our case, the most important limitations were the following: insufficient detail in the documents because they were produced for the forum's internal use, not for research use, and biased selectivity in the writing because they were written according to ministry procedures and with the agenda of writing down the issues important for the progress of the design of the development programme. To overcome the limitations of the document analysis, researcher triangulation was utilized. The authors of this paper have been active participants of the forum and were representing different organizations: two were from the ministry and two from different universities. While writing the paper, the authors collaborated and looked for consensus in the writing and interpreting of the findings. Consequently, the recalling of the experiences of the design process and the discussions of these experiences were used for helping the researchers guard against the accusation that a study's findings are simply an artefact of a single method, a single source or a single investigator's bias (Patton, 1990).

Design of the Development Programme for Finnish Teachers Pre-, Introductory and In-Service Education

The Ministry of Education and Culture (MEC) nominated several national forums and committees, such as the Comprehensive School Forum (MEC, 2018a). These committees were aiming to support the Finnish government (2015–2019) to achieve the government aims (Finland government programme, 2015). For recognizing challenges and making progress in teacher education, the MEC nominated in February 2016 a Finnish Teacher Education Forum or, simply, the forum (MEC, 2016). The Teacher Education Forum was asked to prepare collaboratively a Development Programme for Teachers' Pre- and In-service Education. The minister nominated 70 experts—for example from the Finnish, the Ministry of Education and Culture and the Finnish Agency for Education and representatives from the Association of Finnish Local and Regional Authorities, the Trade Union of Education (OAJ), and Teacher Student Union in Finland (SOOL), and the Principal Association and several other stakeholders. The forum represented all types and levels of pre-service, introductory and in-service teacher education in the country—including early childhood, pre-primary, primary, special needs, guidance counsellors as well as teachers in vocational education and training and adult education, higher education institutions and liberal adult education.

The development programme was designed collaboratively by the forum and by taking into account the research outcomes related to the teacher education and brain-storming outcomes associated with the renewal of teacher education. The brainstorming was organized at the national level as described below. Moreover, several forum and regional meetings were organized and teacher educators from the region were invited to these meetings as also described in detail below.

Challenges in Finnish Education

The challenges in the Finnish education system were preliminary recognized based on the OECD, PISA and TALIS (OECD 2013, 2014) surveys and the national-level monitoring reports and articles that were produced by the researcher in Finnish Education Evaluation Centre, Karvi (e.g., Blömeke et al. 2018). The recognized challenges were discussed at both national and regional meetings of the forum. The challenges in Finnish education were summarised in the meetings of the executive committee at different levels from the point of view of teacher education as follows ('In the presentation of the forum director, he presented a summary of challenges at student, classroom, school and city levels', Memo of the forum meeting, 25/5/16):

- Challenges that influence teacher education and come from the school environment:
 - Student-level challenges such as a decrease in learning outcomes, an increase in the variation of learning outcomes and the various needs of individual learners

- Classroom-level challenges such as guiding students in active and collaborative learning processes in heterogeneous and multicultural classrooms and supporting students in learning twenty-first century competencies according to new curricula
- School- and city-level challenges such as a lack of teachers' collaboration, lack of quality work at the local level and lack of pedagogical leadership supportive for teachers' professional learning
- Challenges in teachers' pedagogical competences and innovative orientation and a lack of willingness and competence for personal professional learning
- Society-level challenges such as the number of young people who drop out from education or the labour market and an increase in inequality as well as the influence of digitalization, such as that of artificial intelligence and automation, on the education sector.

The various challenges in the school environment cannot be overcome only through the development of teacher education. Therefore, several national measures and development projects have been launched in Finland since 2016, which support the development of education practices at all levels, from early childhood education to teacher education and higher education. A broad development approach is important because primary and secondary education and teacher education are interlinked in many ways (Garm & Karlsen, 2004). The phase of the other reforms was also introduced in the meetings of the forum and executive group ('The discussions in the basic education forum were introduced and discussed', Memo of the executive committee meeting, 10/02/16). The director of the forum and ministry experts also participated in the national-level steering committee meetings, which were led by the Ministry of Education and Culture. Consequently, these state-level development projects affected the development of teacher education. Examples of the projects are the following: preparation of a new act for pre-primary education (MEC, 2018a); the 'Comprehensive School Forum prepared a developmental plan for the comprehensive schools (MEC, 2018b); preparation of the new Upper Secondary Education law (MEC, 2018c).

Literature Review on Teachers and Teacher Education Related Research

The literature review (Husu & Toom, 2014), organized by the forum, identified several outcomes, which were discussed in the forum meetings and taken into account in the designing of the development programme. These included research outcomes related to the role of education in society; teaching learners with different needs; the design and use of educational innovations, such as education technology, in teaching and learning; and, moreover, the impact of research on teachers and teacher education on the design of the development program ('The content of the literature review was discussed, and a guideline was prepared', Memo of the executive committee meeting, 13/4/16). The review introduced several models that categorize teacher knowledge and competencies. In addition to the various domains of teacher knowledge, student

teachers should be willing and able to learn new competences. For example, inclusive education and co-teaching could be competences teachers did not learn during their initial teacher education but they should learn these on the job (Beijaard, Korthagen, & Verloop, 2007; Korthagen, 2016; 2017). In the Finnish education context, research orientation in teacher education has been assumed to provide this readiness for continuous learning (Darlington-Hammond, 2016, 2017).

Another issue concerning teacher knowledge is the question about the origin of teacher knowledge. Hiebert, Gallimore and Stigler (2002) distinguished between practical and professional knowledge in order to describe the ends of the continuum regarding the origin of teacher knowledge. Professional knowledge is research based, and it is characterized by its generalisability and scientific character. Practitioner knowledge is linked with practice; it is grounded in a real-life context and is specific, detailed and concrete. However, practitioner knowledge could be transferred into professional knowledge through reflection. Therefore, the challenge in integrating theory and practice belongs to this origin of teacher knowledge view.

The conclusions based on the literature review are are not easily decipherable, as it is difficult to illustrate what kind of knowledge (competence) a teacher needs because the understanding of teacher knowledge (competence) depends on how we understand students' learning and well-being; how we understand teacher professionalism and effectiveness; how teachers' professional learning and teachers' collaboration are organized; how we understand a school as a learning community (school development); and how education policy is done and implemented. (Leana, 2011; Pyhältö, Pietarinen, & Soini, 2014) This is why the Finnish Teacher Education Forum adopted a process-like and dialogical working approach and emphasized reaching consensus among the actors.

Benchmarking Neighbouring Countries Teacher Education Strategies

In addition to recognizing the challenges based on the assessment reports and various views based on the literature review, the teacher education programmes and strategies of neighbouring countries were benchmarked and discussed in the forum meetings. For example, the Norwegian 2016 elementary teacher education strategy aims to raise the Norwegian teacher education credentials to the master's level and augment the expectations of teachers in addition to traditional pedagogical competences. This includes taking responsibility for developing and leading inclusive, creative, safe and healthy learning environments in the classroom as well as creating the competences needed to contribute to the professional community of teachers in order to contribute to professional and organizational development (Norwegian Directorate for Education and Training, 2017). Compared to previous national strategies, the new Norwegian strategy emphasizes research orientation in teacher education along with improved competences in teacher collaboration as well as the development of the school envi-

ronment.

Hearing of Experts and Organizing a National Web-Based Brainstorming Process In every second executive committee meeting, various stakeholders or interest group delegations were met with, and teacher education challenges and measures were discussed. Representatives of the National Agency for Education met every year ('Both, forum and agency, representatives introduced current phase in the development of teacher and school education', Memo of the executive committee meeting, 15/6/16). Moreover, the forum decided to organize a national web-based brainstorming process related to the renewal of teacher education (Surowiecki, 2005) ('It was agreed that a web-based brainstorming will be organized during the spring', Memo of the executive committee meeting, 13/4/16).

The brainstorming aimed to capture teacher educators' and teachers' views on what is important in teacher education. A call to participate in the brainstorming process was sent to teacher educators in all Finnish universities as well as to all teachers and administrative employees working in the field of education at both the national and local level in order to emphasize the decentralization of idea generation and enable all stakeholders to participate in the reform process as emphasized by Cochran-Smith, Keefe and Carney (2018). The participants were first guided to generate ideas about what will be important in teacher education. Next, the participants were asked to evaluate or rank about 10 ideas contributed by others. The web-based brainstorming process combined similar ideas and reduced the number of ideas offered for ranking. According to participants, the most important priorities for students to learn in teacher education are learning-to-learn skills, along with interaction and collaboration skills. The same skills were also emphasized in the recent Norwegian and Swedish teacher education strategy papers (Norwegian Directorate for Education and Training, 2017; Swedish Council for Higher Education, 2017) and emerged from the teacher education literature review (Husu & Toom, 2014). The competences involved in generating ideas, change and research-based action and collaboration in partnerships and networks are all needed so that teachers can participate collaboratively to develop classroom practices and culture in particular school contexts. Most of the top-ranked skills and competences identified are needed outside the classroom. This means that in teacher education, participants believe that more attention should be paid to the skills and competences needed for effective teacher collaboration. Meanwhile, interaction and collaboration skills as well as digitalization skills are needed in a classroom environment. ('In the evaluation discussion, it was agreed that the network-based brainstorming together with the hearing of stakeholders in the executive committee meetings offered a broad view what kind of aims different parties and stakeholders emphasize in teacher education', Memo of the executive committee meeting, 19/2/18)

Collaborative Designing of the Development Programme

From autumn 2016 to spring 2019, the Finnish Teacher Education Forum organized 12 nation-wide meetings, seven local meetings and several thematic group meetings in person and over the internet ('It was agreed that in the next nationwide meeting the thematic groups will discuss the challenges and aims related to teacher education. The discussion will be guided and, in the end, the next steps and meetings will be agreed upon', Memo of the executive committee meeting, 26/2/16; 'It was agreed that the thematic groups will outline 3-10 strategic aims for the next meeting', Memo of the executive committee meeting, 13/4/16; 'In the next meeting, 23.8.16, the first draft of the development programme will be introduced', Memo of the executive committee meeting, 15/6/16). In these meetings, representatives from the previously mentioned stakeholders participated. During 2016, these meetings supported collaborative efforts to meet the challenges and aims of teacher education and the preparation of the Development Programme for Teachers' Pre- and In-Service Education (MEC 2016) ('The forum meeting in Helsinki on 9.2.16 was designed and agreed that there will be two plenary talks, focusing on the research on teachers and teacher education', Memo of the executive committee meeting, 15/6/16).

The executive committee discussed the outcomes of the literature review, the best practices based on teacher education strategies and policy documents from other countries and outcomes of the national-level brainstorming. It planned all the forum meetings, discussed the outcomes of the meetings, wrote a draft programme and edited it based on the feedback from the forum meetings ('In the meeting it was outlined strategic aims to the following areas: broad basic competences; research competences; leadership; partnerships and networks; sustainable development and global citizenship', Memo of the upper secondary school section of the forum meeting, 18/3/2016; 'It was agreed that the strategy will consist of three elements: a vision, strategic aims and actions', Memo of the executive committee meeting, 26/2/16).

The Development Programme for Teachers Pre-, Introductory and In-service Education

The outcome of the design process, the Development Programme for Teachers Pre-, Introductory and In-Service Education, set out three strategic competence goals for teachers' pre- and in-service education and continuous life-long professional learning. These competence goals do not actually include all possible goals; rather, they show the direction for the development of teacher education. According to this document, a professional teacher should

 have a broad and solid knowledge base about the relevant subject matter and pedagogy; about how to engage learners with different needs; about collaboration, interaction, digital and research skills; about schools' societal and business connections; and about ethical codes;

- be able to generate novel ideas and educational innovations while making the local curriculum, while planning inclusive education and while designing and adopting pedagogical innovations;
- have the willingness and competences required for professional learning and for developing their schools' operations and environments, especially for the development of the school culture, versatile learning environments and digital tools necessary for maintaining and creating different networks and partnerships with students, parents and other stakeholders.

In addition to strategic competence goals, the development programme included six concrete strategic guidelines, which helped determine the direction for the development of teacher education. These guidelines directed the development of teacher education as well as the themes for pilot projects, which have and will be implemented in two phases between years 2017 and 2019 and 2019 and 2021 according to Finnish Teacher Education Forum plans ('The call for a proposal text was discussed and modified. The strategic aims, actions and collaboration on different levels, such as between universities and schools, will be emphasized, 'Memo of the executive committee meeting, 17/11/16). In total, 27.7 million euros have been allocated to these projects in the state budget. The strategic guidelines for the pilot projects were as follows:

- A teacher education program's structure, objectives and organization will better support the cumulative development of the competences a teacher needs in and outside the classroom.
- Teacher education will be strengthened through increasingly close collaboration, networking and building a culture of doing things together.
- Teacher education institutions will develop attractive teacher education with well-functioning structures and successful student admissions.
- The programmes, learning environments and teaching/learning methods
 used in teacher education will be improved to strengthen the development of
 expertise in generating ideas and pedagogical innovations.
- Strategic leadership in education providers, schools and other education institutes will be strengthened.
- Training programmes and teaching/learning practices are based on research and student teachers learning research skills.

Discussion and Conclusions

The aim of this paper has been to describe the collaborative design of the national Development Programme for Teachers Pre-, Introductory and In-Service Education or strategy. The development programme was designed by the Finnish Teacher Education Forum, or 70 teacher educators and stakeholders, at the beginning of 2016, and the design phase was completed in November 2016. A large forum, several national and local meetings and national brainstorming were aiming to serve the interests of the teacher

education community and stakeholders, including education policy-makers, in order to take into account the critique of Sachs (2003) and Beach, Bagley, Eriksson and Player-Koro. (2014, p. 167) related to strategy planning by a small group of people. The implementation of the development programme, during the years 2017–2019, was supported by forum and local meetings and sustainable resources for pilot projects. However, the implementation phase will be described in a different paper.

The forum has worked in line with OECD recommendations, as presented in 'Principles of modern governance: Governing education in a complex world' (Burns & Köster, 2016). The OECD recommendations for the organization of the strategy work do not include research orientation in the planning and implementation of the strategy as suggested by Plecki and Loeb (2004). However, the characteristics of the work of the forum have been research-oriented. For example, a thorough literature review considering teacher education as well as national-level teacher education strategies or standards was organized. Moreover, the challenges in teaching and teacher education were preliminarily recognized on the basis of the OECD, PISA and TALIS surveys (OECD, 2013, 2014) as well as through national-level monitoring reports about students' learning in various fields (e.g., Blömeke et al. 2018). The research-based challenges were summarised in the meetings of the executive committee at different levels from the point of view of teacher education.

Two important characteristics of the Finnish education context are decentralization and autonomy at the teacher, school, municipality and university level. Decentralization allows teachers and teacher educators to address local contexts and education research outcomes. Decentralization and autonomy are strongly linked to the Finnish way of interpreting teacher and teacher educators' professionalism and the status of teachers and teacher education in Finnish society. This decentralization and autonomy on all levels make the preparation of national strategies or national guidelines challenging. Therefore, it is important to engage the autonomous teacher education institutes and teacher educators during the planning of national strategies in order to support the ownership towards the strategy and support the adoption of the strategy, as Madalińska-Michalak, O'Doherty and Flores (2018) emphasized. They argued that teacher educators should be seen as reformers rather than as the objects or targets of other agents' reforms or as local implementers of larger policies. This is the reason why we have described in this paper how the development programme has been prepared in collaboration, at national- and local-level meetings, and through engaging teacher educators for national brainstorming in order to include teacher educators in design and support the adoption of the development programme as Caycı and Arslan (2014) and Koenraad and van der Hoeff (2013) have suggested. However, it is not easy to maintain a collaborative nature in national-level design work. Voluntary participation is an important characteristic of collaboration in the context of the improvement of education (Slater, 2010). This voluntary participation means that there were different people in different meetings, and this makes it difficult to look for consensus, although joint work and interdependence is also an important characteristic of collaboration. The development of interdependence needs that the same people attend the meetings.

A unique characteristic in the preparation process of the development programme was a national-level web-based brainstorming process, in which various teacher educators and teachers participated. This brainstorming process offered a different type of input to the strategy process than the forum meetings and literature review. The brainstorming outcome emphasizes the importance of acquiring' learning-to-learn skills, along with interaction and collaboration skills during the initial teacher education and professional learning. Another outcome of the brainstorming process was the emphasis on learning competences related to generating ideas, preparing' for change and collaborating through partnerships and networks. This means that, in teacher education, more attention should be paid to the skills and competences needed for collaborative and creative processes.

An active executive committee is essential for creating a national strategy. The committee represented the relevant partners of teacher education and was aware of the research on education policy and the topic of the strategy—in this case, teaching and teacher education. A draft development programme was discussed, and feedback was collected and analyzed in executive committee meetings. Moreover, the committee was responsible for ensuring the internal quality of the work as well as of the strategy process. However, the committee allowed open discussions, heard the opinions of teacher educators and stakeholders and was looking for consensus. However, an active executive committee is also a threat to the parity or equality of the forum members, which is recognized as an important characteristic of collaboration (Slater, 2010). Some of the members could have thought that the executive committee has better possibilities for decision-making than the rest of the forum. Moreover, teacher educators who are not members of the forum easily feel that they do not have enough possibilities for influencing the content of the development programme.

The Finnish Teacher Education Forum designed the national Teacher Education Development Programme at the same time as the design of the new act for pre-primary education (MEC, 2018a), the developmental plan for basic (primary and lower secondary) schools (MEC, 2018b) and the Upper Secondary Education law (MEC, 2018c). The draft development programme was discussed by the ministry-led steering committee in separate national-level forums. Therefore, it was possible to design the strategic aims of the development programme in line with these other national-level strategic documents. The coherence between the documents was supported by the collaboration of the other strategy groups and by the minister-led steering committee. Therefore, the coherence among strategies for teacher education and other strategies is as important as it is inside teacher education strategies and programmes (McPherson & Martin, 2001).

The forum recognized three strategic competence goals that should be emphasized in teachers' pre- and in-service education. Therefore, the goals were described for the whole career in a similar way as that in Scotland (Torrance & Forde, 2017). According to these goals, student teachers and teachers should first have a broad and solid knowledge base, such as having deep knowledge in the relevant subject matter and pedagogy. Second, they should become better at generating novel ideas and educational innovations while designing the local curriculum or planning inclusive education. Third, they should have the competences required for professional learning and the development of the professional community (MEC, 2016). These goals are not easy to achieve through traditional teacher education courses. Instead, student teachers should be guided toward diverse learning contexts and activities. These include university coursework, fieldwork and research-oriented work. The achievement of the aims is dependent on a wide array of factors, such as opportunities for developing professional knowledge, including classroom observation and teacher modelling (Flores, 2019).

The Finnish teacher education policy and teacher education programmes have always emphasized having a professional knowledge base, networking skills and competences for professional learning, which are in line with the ideas of Stronge and Hindman (2003) and GoeBell and Little (2008). Skills for planning are a classical element of teacher knowledge (Verloopvan Driel & Meijer, 2001), and include all steps from the planning of the local curriculum to the planning of a single lesson. The knowledge base also includes the shared understanding of professional values and ethics codes. The development programme emphasizes social and individual elements, such as teacher collaboration and networking (Malm, 2009). The development programme emphasizes similar competencies as previous policies in Finland but also adds new domains to teacher competence that were not emphasized in earlier Finnish strategies. One new domain was a competence for generating novel ideas and educational innovations. Moreover, emphasis on the teachers' role in the development of schools' operations and their learning environment was a new aim. This competence belongs to school-level leadership and emphasizes the teachers' role in leadership and collaborative learning. This is similar to the communities of practice, which aim to progress school operations, teachers' own work and the quality of instruction in the classrooms (Printy, 2008).

Research competence has been a part of the knowledge base for a Finnish teacher since the change to the master's level teacher education in the 1970s (Simola, 2005). The research orientation in teacher education has supported Finnish teachers in developing the competences needed in professional learning and in the planning of local curriculum, teaching and assessment activities. This type of orientation is typically not included in the teacher knowledge base. The student teachers' orientation towards research was introduced as new orientations in Swedish and Norwegian teacher education strategies (Norwegian Directorate for Education and Training, 2017; Swedish

Council for Higher Education, 2017).

The three strategic competence goals aim to partly solve the challenges described in the sub-chapter 'Challenges in Finnish education'. Specifically, the outlined knowledge base includes competences needed in the tackling the various needs of individual learners and in guiding students in active and collaborative learning processes in heterogeneous and multicultural classrooms. The aims related to the development of the professional community aim to increase teachers' collaboration and develop pedagogical leadership. The aim related to the competences needed for generating novel ideas and educational innovations aims to support teachers to generate ideas to solve problems or overcome challenges at the local level. Creativity is needed, for example, in the design of versatile digital and physical learning environments as well as inclusive ones.

When the Finnish teacher education aims are compared to teacher standards of other countries, such as Australia or the UK, it becomes clear that it emphasizes quality teaching and learning in a similar way (APST, 2014; Department for Education, 2011). Moreover, teachers' professional learning and their professional engagement with colleagues and parents are also emphasized in a similar way. However, these standards do not include academic orientation or research competence as an important competence for teachers. Yet, the national standards of several other countries (Caena, 2014) do not emphasize teachers' active role in generating novel solutions for classroom teaching.

The forum type of working has been recognized as appropriate for the development of teacher education as also described in this paper. Therefore, education policy-makers decided that it is important to continuously improve teacher education programmes and practices through forum type of collaboration.

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