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**Vilhelmiina Harju**

**Beginning teachers' support needs for professional development**

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### **Abstract**

In this doctoral dissertation, I investigate the needs of beginning teachers for support in professional development. The first aim is to examine, how support needs are experienced by new teachers in four European countries: Finland, England, Portugal, and Flanders (in Belgium). The second aim is to examine how Finnish beginning teachers and principals experience early-career teaching support needs.

In the study, teaching is considered to be a profession with widening responsibilities in schools and society. Along with this assumption, a theoretical framework is built upon the concepts of professional competence and continuously developing expertise. These elements are considered to be integral parts of teachers' work that influence their support needs at the beginning of their careers.

The dissertation consists of three sub-studies that were carried out as part of a European-funded Erasmus+ Key Action 2 project. The first sub-study examined the essential support needs and the support need profiles among beginning teachers in four European countries. The second sub-study focused on investigating the topic from the perspective of Finnish principals in particular. The third sub-study combined the viewpoints of Finnish beginning teachers and principals. A mixed methods approach was used in the dissertation. The data were collected via an electronic questionnaire, and quantitative and qualitative methods were used to obtain a more comprehensive understanding of the phenomena related to the support needs of beginning teachers.

The results of this dissertation show that the support needs of beginning teachers are simultaneously individual and common. They are partly connected to certain professional tasks, practices, or challenges of teachers' work, but at the same time are linked to the wider processes of developing routine and adaptive expertise. The identified support needs also reflect the complex and broad requirements and challenges set for the teaching profession today.

Furthermore, the results suggest that the focus of beginning teachers is not on themselves but rather on students' learning and on collaboration in the school community. In particular, the results from both the transnational and Finnish contexts indicate that supporting students' comprehensive individual growth, differentiating teaching, and acting in conflict situations are a key area of support. In total, three broad perspectives of support needs are identified: (1) supporting students' comprehensive individual growth, (2) working in the school community, and (3) developing one's own work. These are all part of the wider process of

developing expertise that can be understood as a holistic continuum of professional development relating to the teaching profession.

To conclude, the present doctoral dissertation finds that beginning teachers' support needs are related to several aspects of professional competence, suggesting that, at the beginning of a teaching career, professional development occurs simultaneously across several dimensions of professional competence. Support needs are strongly related to the characteristics of the teaching profession, as well as to practices in schools, and their complexity and context- and time-specificity must be considered when planning and implementing support activities for beginning teachers.

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*Keywords:* beginning teachers, professional development, competence, professional expertise

**Vilhelmiina Harju**

## **Työssään aloittavien opettajien ammatilliseen kehittymiseen liittyvät tuenttarpeet**

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### **Tiivistelmä**

Tässä väitöskirjassa tarkastellaan työssään aloittavien opettajien ammatilliseen kehittymiseen liittyviä tuenttarpeita. Ensimmäisenä tavoitteena on tutkia, millaisia kokemuksia uusilla opettajilla Suomessa, Englannissa, Portugalissa ja Flanderissa (Belgiassa) on omista ammatillisista tuenttarpeistaan. Toisena tavoitteena on tutkia, kuinka erityisesti suomalaiset uudet opettajat sekä rehtorit kokevat työuran alkuun liittyvät tuenttarpeet.

Tutkimuksessa opetusammatti ymmärretään professiona, johon liittyy monitahoisia työtehtäviä sekä vastuuta koulussa ja yhteiskunnassa. Tämän lisäksi opettajan ammattia sekä ammatillista kehittymistä lähestytään kompetenssin ja kehittyvän asiantuntijuuden käsitteiden avulla. Laajat ja monitahoiset kompetenssit sekä kehittyvä asiantuntijuus vaikuttavat osaltaan opettajan työn alkuvaiheen tuenttarpeisiin.

Väitöskirja koostuu kolmesta osatutkimuksesta, jotka toteutettiin osana Euroopan Unionin rahoittamaa Erasmus+ Key Action 2 -hanketta. Ensimmäisessä osatutkimuksessa tarkasteltiin työtään aloittavien opettajien tuenttarpeita neljässä eri Euroopan maassa. Toinen osatutkimus lähestyi aihetta erityisesti suomalaisten rehtoreiden kokemusten kautta. Kolmannessa osatutkimuksessa tarkasteltiin suomalaisten uusien opettajien sekä rehtoreiden näkemyksiä yhdessä. Tutkimuksessa hyödynnettiin monimenetelmällistä lähestymistapaa: Kokonaisvaltaisen ymmärryksen muodostamiseksi käytettiin sekä määrällisiä että laadullisia menetelmiä. Aineistot kerättiin sähköisillä kyselylomakkeilla.

Väitöskirjan tulokset osoittavat, että uusien opettajien tuenttarpeet ovat samanaikaisesti sekä yksilöllisiä että yleisiä. Ne liittyvät koulun pedagogisiin työtehtäviin tai käytäntöihin, mutta samalla myös laajempiin asiantuntijuuden kehittymisen prosesseihin koulu yhteisössä ja yhteiskunnassa. Löydetyt tuenttarpeet heijastavat myös opettajan ammatille asetettuja moninaisia ja laajoja vaatimuksia ja haasteita.

Tutkimuksen tulokset osoittavat, että työssään aloittavien opettajien huomio ei ole ensisijaisesti heissä itsessään tai omassa selviytymisessä, vaan pikemminkin oppilaiden oppimisen tukemisessa ja työskentelyssä koulu yhteisössä. Sekä eurooppalaisen että suomalaisen kontekstin tarkastelussa oppilaan yksilöllisen kasvun tukeminen, opetuksen eriyttäminen sekä konfliktitilanteissa toimiminen näyt-

täytyivät keskeisinä opettajien tuentarpeen alueina. Kaiken kaikkiaan tutkimuksessa löydettiin kolme laajaa ja osin limittäistä tuentarpeiden aluetta, jotka ovat: (1) oppilaiden kokonaisvaltaisen ja yksilöllisen oppimisen tukeminen, (2) työskentely kouluyhteisössä sekä (3) oman työn kehittäminen. Nämä kaikki ovat osa laajempaa asiantuntijuuden kehittymisen prosessia.

Yhteenvetona voidaan todeta, että uusien opettajien tuentarpeet liittyvät laajasti ammatillisen työn eri osa-alueisiin sekä ajankohtaisiin koulun ja opettajan koulutuksen haasteisiin. Aikasidonnaisuus sekä opettajien erilaiset tarpeet on huomioitava suunniteltaessa ja toteutettaessa tukea uusille opettajille.

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*Avainsanat:* uudet opettajat, ammatillinen kehittyminen, kompetenssi, asiantuntijuus

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Helsinki, October 2020  
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## List of original publications

This dissertation is based on the following three original publications, which are referred to in the text as Study I, Study II, and Study III. The original articles are reprinted with the permission of the copyright holders.

- Study I** Harju, V. & Niemi, H. (2016). Newly qualified teachers' needs of support for professional competences in four European countries: Finland, the United Kingdom, Portugal, and Belgium. *CEPS Journal*, 6(3), 77–100.
- Study II** Harju, V. & Niemi, H. (2020). Newly qualified teachers' support needs in developing professional competences: the principal's viewpoint. *Teacher Development*, 24(1), 52–70.
- Study III** Harju, V. & Niemi, H. (2018). Teachers' changing work and support needs from the perspectives of school leaders and newly qualified teachers in the Finnish context. *European Journal of Teacher Education*, 41(5), 670–687.



# 1 Introduction

Changes in societies, developments in technology, and new concepts in knowledge and learning have created new expectations for the teaching profession. Although the main aim of the work is still to support students' learning (see e.g. Low, 2018), the requirements have expanded and become more diverse than before; student groups are more heterogeneous, individualised and student-centred learning methods are preferred, and learning environments are diversified (Livingston, 2018; Toom & Husu, 2018). In addition, teachers are expected to master multiple professional tasks and roles in a variety of contexts within a school community (see e.g. Kumpulainen, 2017; OECD, 2019). Professional practice is not limited only to pedagogical activities in the classroom but includes also many professional tasks in the school community and society at large (see e.g. Caena, 2014).

The demanding nature of the work requires continuous professional development for teachers. In particular, the first few years of the career are an essential period for teachers' professional learning and competence development (Chong et al., 2012; Engvik & Emstad, 2017; Harford & O'Doherty, 2016; Ingersoll & Strong, 2011; Tammets, Pata, & Eisenschmidt, 2019). As initial teacher education cannot prepare new teachers with all the skills and abilities required to work in the profession, new teachers face many challenges for which they need support, guidance, and further professional development. Meaningful and relevant support provided at the beginning of a career can contribute to the development of teacher competence and enhance wellbeing and commitment to the teaching profession (Hobson & Maxwell, 2017; Schepens, Aelterman, & Vlerick, 2009). The focus of this study is on beginning teachers in the early years of the profession. The main purpose is to examine the needs of teachers for support in professional development during the early stages of their careers.

The first few years in the teaching profession are called the induction phase. Induction refers to the first independent steps taken in the profession and the support offered during them (see e.g. Eisenschmidt & Oder, 2018; European Commission, 2010, p. 6). In practice, the support offered during induction can be organised through mandatory national programmes, processes offered by municipalities or local schools, or training provided by other organisations, such as universities (see e.g. European Commission, 2010). In this study, support is viewed as 'formal and informal support and activities that are designed to help teachers develop as professionals' (Coldwell, 2017, p. 189). During induction, support can take the form of guidance, shared information, training, mentoring, or a collegial discussion (Aspfors, 2012; European Commission, 2010).

The support needs of new teachers are common and unique at the same time (Gaikhorst et al., 2017; Richter et al., 2011; Kyndt et al., 2016). Whereas some typical support needs related to the first few years can be identified (see e.g. Kane & Francis 2013; Scheerens, 2010), the individual, their context, and time-specific factors also need to be considered. As described by Livingston (2017, p. 141), ‘Teachers work in increasingly complex and diverse settings and they have very different and changing professional learning needs. These learning needs may be very specific to teachers or to the context in which they work.’

In this doctoral dissertation, the focus is on beginning teachers’ support needs. Support needs are considered to be related to a range of work tasks and aspects of the teaching profession, and they are viewed to refer to issues in which beginning teachers need support for professional development. Thus, this study perceives the induction and the transition from initial teacher education to the teaching profession primarily as an individual phase of a teacher’s professional development (see e.g. Aspfors, 2012; Feiman-Nemser, 2001). Support, in turn, is understood as formal and informal activities that aims to help beginning teachers develop as professionals.

The support needs are examined from the viewpoints of both new teachers and principals. More precisely, the situation of new teachers is first examined among beginning teachers in four European countries or sub-national entities, namely, Finland, England, Portugal, and Flanders (in Belgium). Although the needs are examined in different contexts, the study does not aim to build comprehensive or representative picture of the situation of beginning teachers in different countries. Instead, the objective is to examine how support needs are experienced by new teachers, who may work and live in different contexts. In addition to new teachers’ perspectives, the support needs of beginning teachers are approached by examining the experiences of principals working in Finnish schools. In this way, the aim is to extend the school community perspective, and especially the perspective of the ones organising the support practices in the local level, to the examination of early career support needs.

In this study, the terms beginning teachers and new teachers are used synonymously to refer to teachers who are at the beginning of their careers. Most of the teachers that participated in this study had up to five years of professional experience after graduation, while others were still working towards official teacher status and acting as teachers in schools at the same time. Teachers, who participated to the study worked mainly in primary, lower secondary, or upper secondary schools. Most of the principals, in turn, worked in primary or lower secondary schools.

The general focus of this study is on the Finnish educational context, although the topic is also examined in three other European contexts. All three sub-studies of this dissertation were carried out as part of the European-funded Erasmus+ Key Action 2 project called the ‘Outstanding Newly Qualified Teacher Program’

(ONTP). The first sub-study examines the support needs of new teachers in four European countries or sub-national entities: Finland, England, Portugal, and Flanders. The second sub-study focuses on investigating the topic from the viewpoint of Finnish principals. In the third, the views of both new teachers and principals in Finland are combined and examined.

The following section outlines the structure of the dissertation. First, the theoretical framework for the study is presented, followed by the research aim and the two research questions. After that, methodological issues are discussed. Finally, after detailing the results of the sub-studies, the study reflects on the results and makes conclusions about the support needs of beginning teachers derived from the investigated experiences.

## 2 The theoretical framework

### 2.1 Approaching teaching as a profession

The definition of teaching affects teachers' work and the position of that work in society. In recent decades, several countries around the world have begun to consider teaching as a profession rather than a craft or technical methodology (see e.g. European Commission, 2013; Hargreaves, 2000; Niemi, 2004; Zeichner, 2020). However, there is no unambiguous definition for the concept of profession, but it has had different meanings across times and contexts (Ro, 2020; Sachs, 2016). Despite the variety in definitions, many of them still share some of the same key features, such as basic competences related to *knowledge and skills*, *values and ethics*, and *autonomy and responsibility* (see e.g. Brock, 2013; Cruess & Cruess, 2012; Simons & Rujiters, 2014). Next, these features of the profession are discussed especially from the viewpoint of teaching and the teaching profession.

One of the core elements of the profession is the mastery of a complex body of knowledge and skills (Cruess, Johnston, & Cruess, 2004). Through formal education and continuous self-directed learning, teachers are expected to develop and maintain professional competence and the theoretically- and practically-grounded expertise needed in their work (Ahonen, 2018). This calls for commitment and integrity from teachers: Professionals are engaged to work towards the goals of the profession and have willingness and ability to face uncertainty and own incompleteness and to develop the work and oneself (Simons & Rujiters, 2014). In addition, the key requirements for the teaching profession often include precise definitions for qualification (Brock, 2013), extensive education (Darling-Hammond, 2005), and connections to research and academia (Sachs, 2016). In Finland for example, the long research-based teacher education programme, which provide student teachers with the qualifications and tools to reflect on and develop their work, has been seen as an essential base for the profession (Lavonen, 2016).

Another central feature is the aims and ethical principles of teaching and education. Practising the teaching profession require commitment to certain ethical codes and values, along with ongoing reflection on 'why is this work central and what is its importance for the individual, community, and society' (Niemi, 2004). Thus, the ultimate goal of the work is to serve others and to promote public good (Cruess, Johnston, & Cruess, 2004). Several countries have already outlined ethical principles for the teaching profession. For example, since 2000, the Trade Union of Education in Finland has committed to ethical codes that cover teachers' relationship with learners, colleagues, and stakeholders, teachers' work in the



school community and society, and teachers' work with diversity, including respecting learners' and their parents' cultures and worldviews (Trade Union of Education in Finland, 2020).

Members of the profession are accountable to those who they serve. In return, society gives the profession the right to autonomy and self-regulation. (Cruess, Johnston, & Cruess, 2004.) Teachers are thus required, but also permitted, to autonomously carry out the profession and to improve their work (Niemi & Lavonen, 2020). Teachers work in professional communities in which the practices and the profession are implemented and developed, both independently and collaboratively (Mockler, 2005; Sachs, 2016).

The above-discussed features of the teaching profession require strong and complex competence from teachers (see e.g. Lavonen, 2018). In this study, competence is approached from two angles. First, the concept of competence is connected to descriptions of the core characteristics, broad professional tasks, or authentic challenges of teachers' work (see Toom, 2017a). In other words, professional competence is viewed as referring to work tasks or requirements set out for the teaching profession. Second, professional competence is understood as a holistic quality integrating a wide combination of knowledge, skills, personal orientations, and professional wellbeing realised in certain situational and social circumstances (see e.g. Metsäpelto et al., 2020; Blömeke & Kaiser, 2017). The wholeness of competence is seen as the sum of multiple constituents needed for competent performance (see e.g. Blömeke, Gustafsson, & Shavelson, 2015). Thus, competence is the capacity to act and constantly develop in wide professional competence areas in the school community and society (see e.g. Blömeke et al., 2015; van Tartwijk, Zwart, & Wubbels, 2017; Toom, 2017a). It shares several similarities with the concept of developing expertise, which is defined here as a continuous, comprehensive, and complex process of development occurring largely in practice (e.g. Berliner, 2001). In this study, teachers' professional development is viewed both as evolving professional competence and expertise.

This doctoral dissertation approaches beginning teachers' support needs for professional development through the concepts of *the teaching profession*, *professional competence*, and *developing expertise*. More precisely, the teaching profession is viewed here as a framework within which professional competence and expertise are realised. Characteristics of these concepts set requirements for teachers' work that also influence new teachers' support needs in the beginning of their careers.

Next, today's teaching profession and its widening responsibilities are discussed through its core characteristics and key professional tasks. After that, the focus is shifted onto the perception of teachers' learning as a continuous development towards expertise. Then, previous studies focusing on new teachers' support needs are introduced and reflected upon, after which the support offered for new teachers and the role of the principals in supporting new teachers are discussed.

## 2.2 The teaching profession in the middle of widening responsibilities

Requirements for teachers' professional competence are much discussed in educational research as well as in policy-making documents (see e.g. Burstow & Maguire, 2014; Caena, 2014; European Commission, 2013; Kumpulainen, 2017; Metsäpelto et al., 2020; OECD 2019, 2020; Redecker, 2017). The latest Teaching and Learning International Survey (TALIS) report from the Organization for Economic Cooperation and Development (OECD) describes teachers' extensive work responsibilities and thus their professional competence as follows (OECD, 2019, p. 26):

Teachers are expected to have a deep and broad understanding of what they teach and the students they teach. They are also expected to understand the research–theory–practice nexus and to have the inquiry and research skills to become lifelong learners who grow in their profession. But teachers today are increasingly expected to perform additional tasks, such as facilitating the development of students' social and emotional skills, responding to students' individual differences and working collaboratively with other teachers and parents to ensure the holistic development of students.

Dall'Alba and Sandberg (2006) state that the ways in which a professional practice is understood have an influence on the knowledge and skills that are seen as essential to be developed. Therefore, the definition of professional competence also requires an analysis of authentic work tasks and situations (Blömeke, et al., 2015). Local and global educational policies, together with wider changes in the society, influence the aims and goals of education and thus the required competences (Brevik et al., 2019; Darling-Hammond, 2017; Kennedy, 2019; Madałńska-Michalak, O'Doherty, & Assunção Flores, 2018). Consequently, professional competence is always context-related and time-specific to some extent (see e.g. Berliner, 2001; Korthagen, 2004; Livingstone, 2017), although some aspects of the profession and their related competence do not change much. For example, the ethical principles of the teaching profession can be considered to be a relatively constant condition guiding the work of teachers (see e.g. Sachs, 2016).

Although pedagogy and actual teaching are integral parts of a teacher's work, current discussions in the field of education also emphasise the broad and complex extent of the teaching profession (Conway et al., 2009; Livingston, 2012). The European Commission (2013; see also OECD, 2009) makes a distinction between teaching and teacher competences. Teaching competences refer to abilities needed in teaching a class, whereas teacher competences 'imply a wider, systemic view of teacher professionalism that is realised and implemented on multiple levels: the

individual, the school, the local community and professional networks' (European Commission, 2013, p. 10; see also Caena, 2014). Among others, the Finnish National Agency for Education has described teachers' extensive work and its current demands for developing professional competence. According to the agency (Kumpulainen, 2017, p. 163), teachers today need competence in:

- supporting individual study paths; providing guidance, different forms of support, and special education
- engaging with cultural diversity and internationality
- developing pedagogy; enhancing experiences of inclusion and ownership of learning
- promoting well-being and safety
- developing the learning culture of educational institutions
- undergoing curriculum and degree renewal
- utilising digital technologies, especially in pedagogy and professional development

Next, these widening professional responsibilities, with their required competences, are discussed under three broad themes, namely *supporting students and their holistic growth*, *work outside the classroom*, and *the teacher as a developer of their own work*.

### **2.2.1 Supporting students and their holistic growth**

In recent decades, paradigm shifts in understanding learning have changed teaching and pedagogy, making them more student oriented (see e.g. Corno, 2008; Livingston, 2012; Lonka et al., 2015; Niemi, 2009). Today, teachers' work and competences are defined primarily from the perspective of students' learning. When learning is viewed as the active construction of knowledge (e.g. Cui & Yu, 2019) or as a collaborative process (Brailas, Koskinas, & Alexias, 2017), a teacher's role is seen as that of a facilitator or co-learner (e.g. Drew & Mackie, 2011; Niu & Niemi, 2019). Teachers are also described as adaptive experts (e.g. Beltramo, 2017; Männikkö & Husu, 2019) who apply teaching to different situations and to the needs of every student.

In addition, ways of perceiving knowledge have changed, influencing the objectives of learning (Livingston, 2012; Lonka et al., 2015; Niemi, 2009). Today, as much information and knowledge is easily available, developing the ability to search, analyse, reflect on, and critically evaluate information to gain a deeper understanding is defined as an important learning goal (Teo, 2019). Likewise, the future and its unpredictable nature have contributed to the definition of learning objectives. Several countries around the world have integrated so-called 'life' or 'transversal' skills into their national curricula in order to promote skills that are

seen as relevant to the individual, their society, and future employment (Lee & Tan, 2018). These skills often include creativity, innovation, critical thinking, problem-solving capabilities, communication skills, collaboration, information and digital literacy, conflict resolution, and social or inter-cultural skills (see e.g. Lee & Tan, 2018). Integrating these skills into teaching requires new ways of understanding learning, teaching, and evaluation (e.g. Yue, 2019). Teachers, working as high-level knowledge workers in complex employment environments, also need these skills themselves (Schleicher, 2012).

Today, schools and classrooms are increasingly heterogeneous. Students and their families come from different cultural, social, and socio-economic backgrounds, and there is also a greater understanding and recognition of learning disabilities and the special needs of students (see e.g. Cajkler & Hall, 2012; Kousa, 2019). Previous studies have highlighted the importance of teachers' cultural sensitivity and multicultural competence in effectively teaching ethically and culturally diverse students (Vincent & Torres, 2015; see also Banks, 1993). Teachers also need competence in handling motivational issues, socio-emotional difficulties, and conflict situations (Camacho & Parham, 2019; Markkanen, Anttila, & Välimäki, 2019; Niu & Niemi, 2020). Competence in inclusive teaching is also necessary (see e.g. Coates, 2012; King-Sears; Jenkins, & Brawand, 2020; Saloviita, 2020).

Above-mentioned competence requirements are also visible in the Finnish educational context. For example, in Finland, education aims not only to support students' academic knowledge and skills but also to enhance their comprehensive growth (see Finnish National Agency for Education, 2016). Holistic pedagogy includes cognitive, social, moral, emotional, and spiritual dimensions (Tirri, 2011). Thus, in addition to strong pedagogical content knowledge and skills (see Shulman 1986), teachers are required to possess competence in supporting students' development in a broad range of areas of growth (see e.g. Darling-Hammond et al., 2020).

The Finnish education system is built on the value of equity, and it emphasises the philosophy of inclusion (see e.g. Kumpulainen & Lankinen, 2016). As part of this aim, in basic education, which covers grades one to nine, also students with special needs are generally included in mainstream schooling. The goal is to support every student according one's individual needs so they can graduate from school and continue to the next level of their educational path. As student groups are heterogenous, teachers are expected to possess competence to differentiate teaching, ability to support students individually, and basic skills and knowledge in special education.

Zilliacus, Holm, and Sahlström (2017) state that the focus in policies and teaching practices in Finland has commonly been limited to the integration rather than inclusion of immigrant students. However, according to the authors, the curricular discourse is now moving towards social justice education, which is visible,

for example, in the current core curriculum for basic education that 'aims to foster ethical and respectful students with a sense of fairness and an open attitude towards all kinds of diversity' (p. 231). As definitions and ways of understanding multicultural education change, schools and teachers are expected to adopt a new kind of perspective and to develop ways to implement multicultural education in teaching (Ibid.).

The local and global changes and future demands of work and people's lives have created the need for a new kind of student and citizen competence in Finland as well. The current national core curriculum for basic education (Finnish National Agency for Education, 2016) that acts as a legal and pedagogical foundation for municipalities and educational institutions, contains the objectives for all school subjects, but introduce also so-called transversal competences that are seen as especially essential for participating in today's and tomorrow's society (see e.g. Haapaniemi et al., 2020). Much emphasis is also placed on students' wellbeing and their active role in the learning process and the school community. This emphasis challenges schools and teachers to plan and decide how to work together and carry out new kinds of learning and teaching activities.

## **2.2.2 Work outside the classroom**

Teaching as a profession is embedded in a school community, and a large part of the work is done outside the classroom. The job includes a range of administrative and supervisory tasks, as well as collaboration with colleagues and other partners (see e.g. Pyhältö, Pietarinen, & Salmela-Aro, 2011). In addition, cooperation with parents is an important part of teachers' work (Hutchison, Paatsch, & Cloonan, 2020; Oinas, Vainikainen, & Hotulainen, 2017). Increasingly, connections with local and even global partners are also seen as essential (Conway et al., 2009; Oates & Bignell, 2019; Toom & Husu, 2018). In Finland, a certain amount of working time of teachers in primary and secondary education is reserved for joint planning, which includes work in school teams, cooperation with parents, working with a student welfare group (referring to multi-professional groups that help students in difficulties), organisation of school events, and development of school activities (Trade Union of Education, 2019).

Several studies and policy documents emphasise teachers' active role in developing school communities (e.g. Caena, 2011; Vangrieken et al., 2017). Teachers may participate in creating and developing curricula implemented in local schools. For example, in Finland, local curricula are created in collaboration with principals, teachers, parents, and other local partners (Vahtivuori-Hänninen et al., 2014).

In addition, current discussions in the field of education highlight the importance of meaningfulness, engagement, and wellbeing in learning (e.g. Bond, 2020; Glazzard, 2019; Tomás et al., 2020). In their work, teachers must promote

the wellbeing of their students and handle possible conflict situations and bullying when occurring in schools. A teacher must have competence to intervene these situations with students, but also to promote a safe learning culture wider in the school community. In Finland, a school community should be developed in such a way that it helps students to engage in the process of learning and to experience school-based education as meaningful and enjoyable. This requires the collaborative development of learning environments and ways of working that integrate versatile approaches, such as digital learning, cross-curricular activities, or co-teaching (see e.g. Bond, 2020; Instefjord & Munthe, 2017; Pratt, 2014).

### **2.2.3 Teacher as a developer of one's own work**

Although fundamentally social in nature, the teaching profession is also highly independent. For example, in Finland, teachers enjoy great autonomy (see e.g., Tirri, 2014; Lavonen, 2018) and have the freedom to decide how to organise teaching and learning activities within the frameworks of national and local curricula. The combination of autonomy and the complex nature of the work requires self-confidence, independence, and responsibility from a teacher, as well as the ability to reflect and develop one's own work and learning (Day, 1999; Livingston, 2012).

Flexibility and readiness to change, together with forward planning, are needed in order to work in changing situations and to support individual students' learning (e.g. Blömeke & Kaiser, 2017). Soslau (2012, p. 768) has summarised these requirements by describing teachers as adaptive teaching experts who:

...engage in a process of self-assessing and strategically adjusting their decision-making before, during, and after teaching episodes. They are able to strategically move away from planned curriculum components to better support the contextual needs of their students, question familiar solutions to problems by noticing unique features, and recognise the need to refine, change, and try out different decisions while paying close attention to the impact on their students.

The school community has an essential role in teachers' professional learning (e.g. Vescio, Ross, & Adams, 2008). According to Cordingley (2015), activities, such as collaboration, professional dialogue with colleagues, and peer support, benefit the development of teachers as well as the school community at large. Similarly, Knight (2002) notes that continuing professional development should enhance not only individual but also collective knowledge and capabilities. Professional learning is thus realised simultaneously and reciprocally in the activities of autonomous teachers, teachers' groups, schools, and socio-political educational contexts (Opfer & Pedder, 2011; Davis & Sumara, 2006).

Although the school community plays an important role in teachers' professional development, the individual teacher also holds great responsibility for their own growth and development. Today, the teacher's role as a learner, with learning and professional development undertaken throughout their teaching career, is much emphasised. 'Teaching-as-learning' or 'teacher-as-a-researcher' are concepts referring to teachers who constantly evaluate and develop their work and activities in their classes and other learning environments (see e.g. Charteris & Smardon, 2014; Niemi & Nevgi, 2014; Puustinen et al., 2018). As they work, teachers also form and develop their professional identities (Feiman-Nemser, 2001). Professional identity is an integral part of professional growth (Schepens et al., 2009) and is 'constituted by teachers' conceptions of themselves as professional actors, that is, as individuals with professional commitments, ideals, interests, beliefs, values, and ethical standards' (Eteläpelto et al., 2014, p. 645).

In Finland, teachers' continuous professional learning is part of their statutory duties (see Katsarova, 2020). The requirement for constant professional learning is also central in a discourse related to the professionalism of teaching: Teachers are expected to develop and maintain professional competence and their profession throughout their career. This is reflected in the recent development programme for Finnish teacher education and teachers' professional development, which states that among other things, professional teacher should have expertise in generating novel ideas and educational innovations, a positive attitude towards continuous change, and competence required for the development of their own and school's expertise (see Ministry of Education and Culture, 2016; Lavonen, 2018).

A recent report (Kola-Torvinen & Kumpulainen, 2020) examined the participation of Finnish teachers and school leaders in in-service training. According to the survey, more than 84% of the respondents participated in a range of in-service training activities during 2018. Noteworthy in these results is that young teachers were less likely than other age groups to participate in in-service training. According to the authors (Ibid.) this may result from the fact that new teachers have not yet focused on formal in-service training, but seek out more informal mentoring or induction activities in their own work community. Another reason mentioned by the authors is that beginning teachers do not feel that they need extra training just after graduation but want time to learn the practices of their new job in peace. However, it may also be that early employment contracts can often be fixed-term contracts, which can make it difficult to attend in-service training.

### **2.3 The dynamic nature of professional development**

Research has approached teachers' professional development from a variety of perspectives. Sometimes it has been perceived as a journey through several phases. Using stage models, researchers have examined teachers' development

over certain moments or phases in their careers by concentrating on their concerns (Conway & Clark, 2003; Fuller & Bown, 1975; Stair, Warner, & Moore, 2012), knowledge or skills acquisition (Berliner, 1994; Dreyfus & Dreyfus, 1986), problems related to work (Huberman, 1992), and attitudes or emotions towards pedagogical changes (Hargreaves, 2005; Maskit, 2011).

Several studies utilising stage models have highlighted the importance of the first few years in teachers' professional development. For example, the well-known study by Fuller and Bown (1975) describes how beginning teachers' focuses and concerns move away from the self and their own adequacy, first to tasks and teaching, and then to students and supporting their learning. Huberman (1992), in turn, calls the first years of teaching survival and discovery. According to him, the first few years at work include lots of learning and new responsibilities that can be hard and frustrating, but also exciting, because new teachers are able to practice in the profession and become part of the school community. Moreover, Kagan (1992) has emphasised the importance of the early stages of professional development. According to her, beginning teachers accomplish three primary tasks in the early stage of their careers, including: acquiring knowledge of students, using this knowledge to build and modify their personal self-images as teachers, and developing pedagogical routines that integrate classroom management and instruction.

Although stage models successfully illustrate the special nature of the early stages of professional developmental (see e.g. van der Lans, van de Grift, & van Veen, 2017), they have been criticised as focusing too generally on teachers' attributes while ignoring individual differences and the specific social, historical, and cultural contexts within which teachers work (Dall'Alba & Sandberg, 2006; Day & Gu, 2007). Recently, research has increasingly integrated both cognitive and situated approaches in examining teachers' learning and the ways they develop professionally (Blömeke & Kaiser, 2017). For example, professional development has been examined through the concept of competence that is often viewed as a continuum, or an integrated combination of knowledge, skills, and attitudes needed in and for work (see e.g. Baartman & de Bruijn, 2011; Liakopoulou, 2011).

As defined at the beginning of this dissertation, teachers' professional competence is seen here as consisting of the knowledge base of teaching and learning (e.g. content, pedagogical, and practical knowledge), cognitive skills (e.g. critical thinking and problem solving), social skills (e.g. interaction skills and skills related to diversity and intercultural competences), personal orientation (e.g. professional ethics and professional identity), and occupational wellbeing (e.g. stress management) (Blömeke et al., 2015; Blömeke & Kaiser 2017; Metsäpelto et al., 2020). The attainment of competence is influenced by personal, situational, and social factors. In addition, professional development fosters competence across different dimensions (e.g. Blömeke et al., 2015). As stated by Blömeke and Kaiser



(2017), the ability to transform the 'potential of teachers' into observed performance depends on an equivalence between teachers' cognitive and affective-motivational competences and their context-related skills. Korthagen (2004, p. 80), in turn, notes that the situation and its circumstances also determine how the competence is put into practice. According to him, competence can be perceived as a 'potential for behaviour.' Dall'Alba and Sandberg (2006) describe how professional capability is always related to an embodied understanding of a certain work environment and its practices. That is, the ways practice is performed and developed depend on how it is understood (see also Berliner, 2001; Blömeke & Kaiser, 2017; Opfer & Pedder, 2011).

Professional competence in teacher education can be understood on the one hand as student teachers' learning goals and, on the other, as long-term objectives of constantly developing teacher expertise (see e.g. Blömeke et al., 2015; van Tartwijk et al., 2017). As stated by Toom (2017b, p. 780), 'on one end of the continuum, competence express the threshold capabilities that early-career teachers inevitably need in their work; and on the other end of the continuum, they characterise the efficient capabilities of an adaptive expert teacher.' During their first few years at work, new teachers are somewhere between these two ends of the continuum: they are already competent, qualified teachers possessing sufficient competence to work as a teacher. At the same time, they are developing the deeper understandings and experience of expertise (see also Fresko & Nasser-Abu Alhija, 2015).

In this study, development of expertise is seen as a continuous, comprehensive, and complex process occurring largely in practice (e.g. Berliner, 2001; Ropo, 2004; Toom, 2017b). Thus, instead of perceiving expertise as a static or fixed stage (e.g. Dreyfus & Dreyfus, 1986), its adaptive, reflective, and reformative nature is emphasised (see e.g. Corno, 2008; Männikkö & Husu, 2019; Soslau, 2012). In addition, as described by Anthony, Hunter and Hunter (2015, p. 109), expertise is understood as 'not being directly related to teaching experience—the traditional novice versus expert division—but rather, as a component of professionalism.' Timperley (2013; see also Anthony et al., 2015) has previously described the development process of expertise as the shifts in teachers' focus from self to students and from simple to complex understandings about learning and pedagogy.

Research has approached teachers' expertise from a variety of perspectives. Previously, it has been connected, for example, to self-consciousness and responsiveness (Day, 2012) and improvisation and creativeness (Sawyer, 2011). Furthermore, two kinds of expertise have been separated to discuss the expertise of teachers: routine and adaptive (e.g. Anthony et al., 2015; Athanases, Bennett, & Wahleithner, 2015; Christiansen et al., 2018; Timperley, 2013). Hatano and Inagaki (1986), who introduced this pair of concepts, define routine expertise as carrying out routine procedures simply, quickly, automatically, and with accuracy

in stable environments. Adaptive expertise, in turn, requires flexibility and adaptability to face constantly emerging new problems. It also demands the ability to reflect on why and under which circumstances certain approaches or methods should be used or new ones developed (Anthony et al., 2015).

Some of the studies concentrating on teacher expertise have viewed professional development as a developmental sequence from a routine to an adaptive expert (Anthony et al., 2015), while others have considered adaptive expertise to be a fundamentally different conception of professionalism than routine expertise (Timperley, 2013). However, perspectives that combine the salience of both routine and adaptive expertise in teaching also appear. For example, Athanases et al. (2015) note that procedural knowledge is needed to manage routines efficiently, but, at the same time, conceptual, adaptive expertise is needed in order to meet the diverse needs of students and to work efficiently in constantly changing educational contexts. This perspective seems useful in perceiving the professional development of teachers at the beginning of their career: On the one hand, new teachers need to learn a lot of practices and routines of the work and of the certain work place, but at the same time to build the competence to face and function smoothly and purposefully in complex social situations.

Expertise has previously been combined with the concept of agency (see e.g. Athanases et al., 2015; Christiansen et al., 2018). According to Christiansen et al. (2018), expertise and agency have a bidirectional relationship: each of them contribute to the other, and teaching expertise makes use of and is in turn enriched by teachers' capacity for action. Although agency is not examined in this doctoral dissertation, its relevance for professional development and expertise is recognised. It is also acknowledged that the concept of agency is diverse and has different definitions in different paradigms. Here, like some approaches to agency, developing expertise is viewed as building the capacity to act and to be reflexive, intentional, and goal-oriented (see e.g. Miller, 2016, p. 349). It is also understood to include the element of change and to enable teachers to act, make choices, take stances, and affect matters in schools (see Eteläpelto et al., 2014). At the same time, it is seen to be related to a certain environment and context: Rather than being something that is possessed in all situations, expertise can be achieved through the active engagement and interaction in certain context or situation (see Biesta, Priestley, & Robinson, 2015; Biesta & Tedder, 2007).

## **2.4 Support at the beginning of a career: Needs and practices**

When entering the workforce, new teachers face a range of employment tasks, situations, and practices that they cannot be prepared for through initial teacher education (Feiman-Nemser, 2001; Kane & Francis, 2013). Work reality may differ from the experiences gained in initial teacher education and one's own school

years as a student. Moreover, getting to know one's colleagues and school practices and finding one's own place in the school community can take some time and energy (Kyndt et al., 2016). Terms such as reality shock or survival are often used to describe this demanding period of one's career (e.g. Fantilli & McDougall, 2009; Fresko & Nasser-Abu Alhija, 2015; Valenčič Zuljan & Marentič Požarnik, 2014; Veenman, 1984), and several studies have reported that emotional exhaustion or feelings of anxiety, stress, insecurity, and frustration are common among new teachers (see e.g. Huberman, 1992; Fantilli & McDougall, 2009; Voss et al., 2017). The early years in the profession are an essential phase for professional learning (e.g. Eisenschmidt & Oder, 2018; Fresko & Nasser-Abu Alhija, 2015; Geeraerts et al., 2015; Ingersoll & Strong, 2011), and they have an influence on the wellbeing, satisfaction, and career plans of new teachers (Heikonen et al., 2017; Ingersoll & Smith, 2004; Valenčič Zuljan & Marentič Požarnik, 2014). The support offered to beginning teachers increases classroom management knowledge (Voss et al., 2017), strengthens professional self-confidence, offers emotional support to cope with frustration or exhaustion (Fresko & Nasser-Abu Alhija, 2015; Voss et al., 2017), and promotes the construction of professional identity (Schultz & Ravitch, 2013).

Valenčič Zuljan and Marentič Požarnik (2014, p. 194) divide the professional challenges faced by beginning teachers into two categories, namely (1) organisation and management of teaching and other tasks and (2) general socialisation. These themes have been widely recognised in research at different times (see also Kane & Francis, 2013). Often, research has reported teachers' challenges or support needs to be specifically related to pedagogy and their work in the classrooms, including challenges in motivating students, assessing learning, differentiating teaching and meeting special needs, managing classroom interaction, encountering the problems of individual students, and teaching students with different mother tongues (see e.g. Bezzina, 2006; Fantilli & McDougall, 2009; Gaikhorst et al., 2017; Veenman, 1984). In contrast, problems in general socialisation are related to things like getting to know the realities and practices of the workplace and school culture and communicating with colleagues and administration (e.g. Fantilli & McDougall, 2009; Grimsæth, Nordvik, & Bergsvik, 2008; Menon, 2012). Previous research has also indicated challenges that are not easily categorised into either of these two groups. These include cooperation with parents and in-service professional development (Fantilli & McDougall, 2009). Also, the development of authority and independence is reported as an important learning need for new teachers (Grimsæth et al., 2008). In line with this, strengthening of professional identity and self-confidence and development of a work community have been found to be central areas of support in teachers' professional development (Geeraerts et al., 2015).

The importance of providing support for beginning teachers is widely recognised (see e.g. European Commission, 2010; Ministry of Education and Culture,

2016; OECD, 2014, 2019; Scheerens, 2010), and most of the countries in Europe provide some kind of structured induction to support beginning teachers (Katsarova, 2020). However, forms of support practices can vary, sometimes widely, across countries and contexts (see e.g. Kearney, 2014; OECD, 2019; Jokinen et al., 2013). During induction, beginning teachers often carry out the same professional tasks as experienced teachers and get paid for their work. Induction should not be confused with short introductory programmes that usually last only a few days and are provided for all (newly qualified and more experienced) new teachers in a certain school (European Commission/EACEA/Eurydice, 2015).

Beginning teachers' support can be divided into formal and informal induction programmes (see e.g. European Commission, 2010). In this study, formal support refers to compulsory nation-wide programmes, whereas informal programmes are voluntary support activities that aim to support beginning teachers early in their career. Mentoring has often been described as the main feature of beginning teachers' support activities (Tammets et al., 2019). However, induction practices can also include several other forms of support, such as guidance, workshops, seminars, courses, networking, and professional collaboration (European Commission, 2010). A more detailed description of the ways teacher education and induction programmes are organised in the countries from which data for this study were collected, are given in Chapter 4.1.

Despite the range of ways support activities are organised, they should always focus on teachers' support and learning needs (Eisenschmidt, Oder, & Reiska, 2013; Livingston, 2014). Earlier, research and policy documents have divided the support offered during induction into three wide support needs areas, namely, professional, personal, and social support (see e.g. Eisenschmidt, 2006; European Commission, 2010; Geeraerts et al., 2015; Thomas et al., 2019). According to the European Commission (2010), the professional dimension of support aims to foster new teachers' competence particularly in classroom pedagogy. It is related to effective classroom skills and deepening the knowledge of subject, pedagogy and didactics. Personal support, in turn, concerns the development of teachers' professional identity. It includes the elements of supporting beginning teachers' self-confidence, enhancing motivation and commitment, and reducing stress and anxiety. Finally, social support refers to the socialisation process in which new teachers become members of the school and the work community. On the other hand, it also refers to collaborative learning and aims to enable cooperation with different partners (e.g. colleagues, parents, and community members) and enhance involvement to the activities in a school community (Ibid).

Support activities and their success is the sum of several factors. Colleagues, principals, and other members of the school community influence the professional development of beginning teachers, and they can meet to the support needs of beginning teachers in many ways (Aspfors, 2012; Bickmore & Bickmore, 2010).

In the next section, the role of the school community and particularly of principals in supporting beginning teachers' professional development is discussed.

## **2.5 The importance of principals in supporting beginning teachers' professional development**

The central role of a school community in supporting teachers and enabling professional development is much emphasised (Day, 1999; Eisenschmidt & Oder, 2018; Geeraerts et al., 2015; Jokinen et al., 2013; Knight, 2002; Tammets et al., 2019; Vangrieken et al., 2017). Importantly, a supportive learning community can help teachers to identify their professional development needs and support the self-directed and independent professional development of individual teachers (Livingston, 2012). It can also foster new teachers' job satisfaction and motivation to stay in the profession (Thomas et al., 2019). Colleagues' and peer-teachers' support can take the form of face-to-face meetings and networking, collegial feedback, or co-teaching (European Commission, 2010).

Although colleagues are important in supporting beginning teachers during the first few years at work, it is principals who play the key role in overseeing the situation as a whole (European Commission, 2010). Principals in particular are necessary in helping to socialise new teachers into the teaching profession (Engvik & Emstad, 2017) and in building collaborative and supportive culture and practices in schools (Aspfors & Bondas, 2013; Bredeson & Johansson, 2000; Thomas et al., 2019). Furthermore, principals' orientation to mentoring and offering support appears to be essential: Leaders with individual orientation may take existing organisational arrangements and support frameworks for granted, whereas leaders with organisational orientation are more open to introducing new support practices for new teachers and to enhance the culture of collegiality, supportive belongingness, and participation in the work community (Klages, Lundestad, & Sundar, 2020).

Depending on the education system, principals may work primarily as either managerial or pedagogical leaders (e.g. Liljenberg, 2015). Despite their orientation towards leadership, principals strongly influence the wellbeing and professional development of their personnel. In Finland, pedagogical leadership is an essential form of school leadership (Saarivirta & Kumpulainen, 2016). It highlights the importance of the principal's role in supporting the learning and development of the whole school community (e.g. Costa et al., 2019). The main goal of pedagogical leadership is to 'build capacity by developing social and academic capital for students and intellectual and professional capital for teachers' (Sergiovanni, 1998, p. 37). Supporting teachers' professional learning and development includes both direct, visible activities, such as setting work objectives and offering training opportunities, and indirect ones, such as creating a collaborative learning culture (Bredeson & Johansson, 2000; Lahtero & Kuusilehto-Awale, 2015). As

principals are responsible for organising support activities for new teachers, they can be expected to have essential information about the situation of new teachers at the beginning of their careers.

### 3 Aims of the study

In recent years, research on teachers' professional development has shown much interest in the first few years of the teaching profession (see e.g. Avalos, 2011; Niemi, 2017). The early years of work have been partly approached through their challenge and emotional workload: Early-career can be a particularly tough and sensitive time for beginning teachers (Fantilli & McDougall, 2009; Fresko & Nasser-Abu Alhija, 2015; Valenčič Zuljan & Marentič Požarnik, 2014; Veenman, 1984). In addition, the first few working years are seen as an especially important period for professional learning and developing competence (Chong et al., 2012; Eischmidt & Oder, 2018; Engvik & Emstad, 2017; Harford & O'Doherty, 2016; Ingersoll & Strong, 2011; Menon, 2012).

Due to the specificity of the first years at work, several countries and research projects have developed induction programmes and practices to support new teachers. However, it has been found that the support offered, and the support needed, do not necessarily match (OECD, 2014, 2019; Jokinen et al., 2013; Livingston, 2012; Taajamo & Puhakka, 2019). Because support needs are individual as well as context- and time-specific (Livingston, 2017), they need to be re-examined at various times by considering the requirements set for the profession at that time. To provide meaningful support for beginning teachers, key support needs must be identified. New teachers have a central knowledge about their needs for support. As principals play a central role in organising collaborative culture and support activities for new teachers at local level in schools (Aspfors & Bondas, 2013; Bredeson & Johansson, 2000; Thomas et al., 2019), they can also offer essential insights into beginning teachers' situation.

My aim in this doctoral dissertation is to investigate beginning teachers' professional development in today's complex and rapidly changing working life. More precisely, the aim is to examine the support needs of beginning teachers by focusing on the viewpoints of new teachers. To build a diverse understanding of the subject, the study also focus on principals' experiences about the support needs of beginning teachers.

The research aim has two sub-questions:

1. What are the professional support needs experienced by beginning teachers in four European countries? (Study I)
2. How do Finnish beginning teachers and principals experience early-career teaching support needs? (Studies II and III)

## 4 Context of the study

This study was carried out as part of the European-funded ONTP project, the members of which came from Flanders, England, Portugal, and Finland. The partners included a pedagogical guidance service organisation, two schools that train teachers, and two universities. The project focused on the support of beginning teachers during the first few years of their careers. The general aims of the project were to support new teachers in their career with tools for teaching and reflection; to support school leaders in guiding new teachers; and to support mentors in helping and assisting beginning teachers.

The three sub-studies in this doctoral dissertation that were implemented as part of the ONTP project, approached beginning teachers' support needs from several angles. Whereas two of the sub-studies (Studies II and III) focused especially on the Finnish context, the aim in one (Study I) was to identify general early-career support needs in four European countries. My interest in this study was in examining the similarities that exist in the support needs of beginning teachers in different contexts and in which areas possible differences may emerge. Thus, the aim was not to build a representative picture or compare different countries with each other. It was acknowledged that the countries differ in their educational systems, teacher education, and support structures, as well as in teachers' work and professional tasks (see e.g. Darling-Hammond, 2017). In the following sections, the contexts of Finland, England, Portugal, and Flanders are described. After that, as the general focus of this study is on the Finnish educational context, the situation of Finnish new teachers is discussed in more detail.

### 4.1 The contexts of Finland, England, Portugal, and Flanders

The contexts of new teachers differ from one country to another. Next, some factors that influence the situation of beginning teachers, such as the initial teacher education system and early-career support, will be discussed. The focus will especially be on the situation of new teachers that participated in this study: The participants in Finland and Portugal included newly qualified teachers that were mainly working as primary school teachers or as teachers in secondary education, whereas participants in England and Flanders included student teachers or beginning teachers working mainly as subject teachers in secondary education. In England, the student teachers undertook a school-led postgraduate teacher training programme, and in Flanders, the respondents that were still studying to obtain pedagogical licence to teach, were in a postgraduate teaching training programme. (The respondent groups are described in more detail in Chapter 5.3). Thus, the



following descriptions do not attempt to depict the situation of a particular country as a whole, but rather to focus on certain essential features of teacher education and early-career support that are central from the point of view of the respondents. Therefore, teacher education is described only to the extent that it is commonly organised for the teachers who participated in the study. Furthermore, the context descriptions aim to present the situation of 2015–2016 when the data were collected, and there may have been changes in teacher education and support arrangements since then. Table 1 summarises the central features or characteristics of teacher education and early-career support in each country. Information in the table is based on the descriptions received from ONTP project members (see Study I) as well as references describing the situation in different countries (see European Commission/EACEA/Eurydice, 2015, 2018; Mutlu, 2016).

**Table 1.** Information of the central features of teacher education and early-career support (see Study I; European Commission/EACEA/Eurydice, 2015, 2018; Mutlu, 2016).

	Finland	England	Portugal	Flanders
<b>Teacher qualification</b>	<ul style="list-style-type: none"> <li>• Master's degree and pedagogical study</li> <li>• 300 ECTS</li> <li>• Takes 5 years</li> </ul>	<ul style="list-style-type: none"> <li>• Postgraduate Certificate in Education and Qualified Teacher Status*</li> <li>• Takes 1–2 years</li> </ul>	<ul style="list-style-type: none"> <li>• Master's degree</li> <li>• 300 ECTS</li> <li>• Takes 4–5 years</li> </ul>	<ul style="list-style-type: none"> <li>• Postgraduate teacher education programme for teaching in secondary education</li> <li>• 60 ECTS</li> <li>• Takes 1–2 years</li> <li>(or)</li> <li>• Bachelor's degree for lower secondary school teaching</li> <li>• 180 ECTS</li> <li>• Takes 3 years</li> </ul>
<b>Pedagogical study</b>	<ul style="list-style-type: none"> <li>• 60 ECTS</li> </ul>	<ul style="list-style-type: none"> <li>• Up to 60 credits at level 7*</li> </ul>	<ul style="list-style-type: none"> <li>• At least 18–21 ECTS</li> </ul>	<ul style="list-style-type: none"> <li>• Post-graduate teacher education programmes: 30 ECTS</li> <li>• Bachelor's degree: Exact number of ECTS for studying pedagogy is hard to estimate***</li> </ul>
<b>Teaching practice</b>	<ul style="list-style-type: none"> <li>• 20 ECTS</li> </ul>	<ul style="list-style-type: none"> <li>• A minimum of 24 weeks**</li> </ul>	<ul style="list-style-type: none"> <li>• 42–63 ECTS</li> </ul>	<ul style="list-style-type: none"> <li>• Post-graduate teacher education programmes: 30 ECTS</li> </ul>

	Finland	England	Portugal	Flanders
				<ul style="list-style-type: none"> <li>• Bachelor's degree: 45 ECTS</li> </ul>
<b>Organising institution of pedagogical study</b>	<ul style="list-style-type: none"> <li>• Universities</li> </ul>	<ul style="list-style-type: none"> <li>• School-lead training</li> </ul>	<ul style="list-style-type: none"> <li>• Universities (some occasions also polytechnics)</li> </ul>	<ul style="list-style-type: none"> <li>• Adult learning institutions</li> <li>• Colleges of higher education</li> <li>• Universities</li> </ul>
<b>Early-career support</b>	<ul style="list-style-type: none"> <li>• Induction is not compulsory for beginning teachers</li> <li>• Often locally organised according to schools' induction programmes</li> <li>• Participation in induction is low</li> </ul>	<ul style="list-style-type: none"> <li>• Induction is a compulsory phase</li> <li>• Locally organised according to schools' induction programmes</li> <li>• Participation in induction is high</li> </ul>	<ul style="list-style-type: none"> <li>• Induction is a compulsory phase</li> <li>• Locally organised according to schools' mentoring programmes</li> <li>• Participation in induction varies</li> </ul>	<ul style="list-style-type: none"> <li>• Induction is not compulsory for beginning teachers</li> <li>• Locally organised according to schools' induction programmes</li> <li>• Participation in induction is high</li> </ul>

\* The duration of the Postgraduate Certificate in Education is not available under ECTS (European Commission/EACEA/Eurydice, 2015)

\*\* The duration of teaching practice has no ECTS equivalent (European Commission/EACEA/Eurydice, 2015)

\*\*\* The subject matter and pedagogical-didactical components are integrated into study programmes throughout the entire programme (Eurydice, 2020)

In Finland, Portugal, and Flanders, teacher education is commonly offered by universities or other higher education institutions. In Finland, teachers in general education (including primary, lower secondary, and general upper secondary schools) must have a master's degree—that is, a five-year university programme. Primary school teachers major in educational science or educational psychology, whereas subject teachers major in the subject they will teach (see e.g. Juuti et al., 2018). Portuguese teacher education is provided mainly by universities and teachers in primary and secondary education are expected to hold a master's degree. The study programmes in Portugal include general education and specific didactics (Eurydice, 2020). Flanders, in turn, provides two types of teacher training programmes for student teachers intending to teach in secondary education. One of them is a postgraduate teacher education programme, which is commonly taken after a subject-specific initial program, and, at the time of the study, this option was offered at adult learning institutions (for graduated bachelor's and master's), universities (for graduated master's), and colleges of higher education (for graduated bachelor's) (Mutlu, 2016). All these three routes are aimed at people who already have an academic degree; they attend an additional year to obtain pedagogical licence to teach (see e.g. Van de Velde et al., 2013; Schepens et al., 2009).

Another type of teacher training in Flanders is an integrated teacher training programme that leads to a bachelor's degree in education. These programmes are offered by colleges of higher education. (Mutlu, 2016.)

Unlike the other three countries, teacher training in England is often organised as school-led teacher training. Postgraduate teacher training programmes that last from one to two years, are aimed at students with an undergraduate degree (often comparable to a bachelor's degree). Training is based in schools and combines practical classroom experience, academic study, and tutoring (see e.g. Universities and Colleges Admissions Service, 2020). After graduating from initial teacher education in England, beginning teachers have to achieve confirmation, that is the professional accreditation of Qualified Teacher Status. This certificate is based on assessment against certain professional standards. (European Commission/EACEA/Eurydice, 2018.)

All four countries include various amounts of pedagogical study and teaching practice in their teacher education programmes. In Finland, as part of their studying, student teachers complete 60 ECTS (European Credit Transfer and Accumulation System credits) in pedagogical study that includes approximately 20 ECTS of teaching practice (Niemi & Lavonen, 2020). In England, the programme of initial teacher training aims to meet the general teachers' standards that are specified under two key themes, namely, teaching and personal and professional conduct (Eurydice, 2020). The programme includes a minimum of 24 weeks of school-based training during which each teacher trainee is assigned two tutors: one focusing on professional and the other on subject-related issues (Study I).

Student teachers in Portugal complete at least 18–21 ECTS of pedagogical study along with the studying in didactics. In addition to this, between 42–63 ECTS in study programmes are allocated to teaching practice. (see Study 1.) In the Flemish system, the amount of pedagogical study and teaching practice varies between the two types of teacher training programmes. In a postgraduate teacher education programme, half of the total of 60 ECTS is allocated for studying pedagogy and the other half for teaching practice, which can be accomplished as pre-service or in-service training. Pre-service training includes practice periods in schools without the chance of employment, whereas student teachers in in-service training work as hired teachers in schools: they are paid for their job, but also get mentoring and support from colleagues and the teacher education institution. Integrated teacher training programmes, in turn, integrate subject and pedagogical studies and teaching practice throughout the study programme. Student teachers, who aim to work in secondary education after graduation, choose two teaching subjects that they will study during the programme. The programme also includes 45 ECTS for teaching practice. (Mutlu, 2016.)

The four counties also have differences in the ways early-career support is organised. The English and Portuguese teacher education systems both include a

year-long compulsory induction programme. In postgraduate teacher training programmes in England, induction activities are organised locally in schools and they contain a range of support activities, such as mentoring, scheduled meetings with the school leader and colleagues, and participation in others teachers' class activities (European Commission/EACEA/Eurydice, 2018). Participation in induction is compulsory and the participation rate is high (European Commission/EACEA/Eurydice, 2015). In Portugal, an essential form of support for beginning teachers is mentoring (European Commission/EACEA/Eurydice, 2015, 2018). Mentoring programmes are organised locally in schools, and they are compulsory for beginning teachers, although at the time of the study, there were still some variations in the ways mentoring in schools was actually organised (see Study I). In Finland and Flanders, induction is not compulsory for beginning teachers. However, induction periods or activities can still be arranged by a range of organisations or local authorities and schools. In Flanders, support activities or mentoring is provided for almost all beginning teachers (Study I; European Commission/EACEA/Eurydice, 2015), whereas in Finland, there are many variations in whether new teachers have an opportunity to join organised induction activities (see e.g. European Commission/EACEA/Eurydice, 2015).

## **4.2 A closer look at the Finnish context**

As described by Lavonen, Korhonen, and Juuti (2015), the aim of the Finnish teacher education programmes is to support student teachers in acquiring a high-quality knowledge base in subject, pedagogical, and moral knowledge; social, network, and partnership skills; and lifelong learning skills, including those in research and the development of one's own teaching, the teaching profession, and curricula. Finnish teacher education integrates a research-based orientation. This is rendered visible in Finnish study programmes, in which around 20% of the studying is related to research (e.g. research methodology courses, research seminars, and thesis writing). In addition, teacher education programmes are based on scholarly knowledge and grounded on continuous, research-based inquiry. (Niemi & Lavonen, 2020.)

Teacher education programmes are popular in Finland. For example, in spring 2020, only 16% of all applicants were admitted to the primary teacher education programme (Karhu, 2020). Correspondingly, the teaching profession is highly valued (Kumpulainen, 2017), and the number of teachers leaving the profession is small compared to many other countries. Several studies and reports (e.g. Jokinen et al., 2013; OECD, 2014, 2019) show that most teachers working in Finland enjoy and continue their work. However, the profession also has perceived shortcomings. As reported by Jokinen et al. (2013), possible reasons for leaving the profession include the increased work requirements and the number of profes-

sional tasks other than actual teaching. These results are similar in part to the results of a previous survey about Finnish student teachers (Penttilä, 2018). According to this report, willingness to work as a teacher after graduation can decrease because of the challenging working conditions and insecurity about one's own ability to cope in the profession. A recent report (Heikkinen et al., 2020) examined the perceptions about the teaching profession among students in Finnish higher secondary education who were just considering their educational choices and applying for a higher education place. The study found that the important factors that enhanced the attractiveness of the teaching profession were especially related to appreciation of the profession in society, autonomy and independence, meaningfulness, and the significance of the work for society. On the other hand, the respondents also experienced that low resources and the high workload of the first few years in the profession lead to a reduction of interest in the teaching profession.

Feelings of insecurity about one's own competence and professional abilities are understandable, as new teachers are expected to work independently in a wide range of professional tasks from the very beginning of their careers (e.g. Jokinen et al., 2013). In Finland, the first few years in the profession are not facilitated by customised job descriptions; the work tasks are the same for them as for the more experienced teachers. Right from the beginning, new teachers are autonomous professionals encountering the freedom and responsibility of the profession (Niemi et al., 2018). Despite the complexity of the first years of work, the structured guidance and support offered for beginning teachers is limited (Kola-Torvinen & Kumpulainen, 2020; Kumpulainen, 2017; OECD, 2014). For example, the latest TALIS survey (OECD, 2019) indicates that most Finnish new teachers working in lower secondary schools have not participated in induction activities at all. Only 16% of new teachers reported that they had participated in an organised induction programme, and 22% reported that they had participated in some kind of informal induction programme during their first employment period. Almost 73% of new teachers reported that they had not attended any induction activities.

According to the TALIS report (OECD, 2019), in Finland, the most common support activities include general or administrative introduction, planned meetings with the principal and/or experienced teachers, and networking with other new teachers. It is noteworthy that principals' estimates of support activities were higher than those of the teachers. For example, principals reported that general or administrative introduction was included in almost 97% of offered inductions, whereas teachers estimated that 79% of the support practices that were offered included general or administrative introduction (see also Taajamo & Puhakka, 2019).

The results of the TALIS survey (OECD, 2019; Taajamo & Puhakka, 2019) also show the lack of mentoring activities offered for new teachers in Finland:

almost 74% of principals reported that there is no access to a mentoring programme for teachers at their school. However, principals still consider mentoring to be a highly important form of support for beginning teachers. In practice, mentoring can be carried out in several ways: for example, as pair-mentoring (see e.g. Niemi & Siljander, 2013) or peer-group mentoring (see e.g. Tynjälä et al., 2019). In 2016, the Ministry of Education and Culture in Finland set up the development programme to reform initial teacher education, induction and in-service training. In their strategic guidelines, the development programme set out the aim of supporting professional development of teachers by integrating mentoring and peer-support models systematically in teacher education and work in schools (see Ministry of Education and Culture, 2016). At the moment, the model of peer-group mentoring is seen as one of the key approaches to support beginning, but also more experienced, teachers' learning in different levels of the education system. The model of peer-group mentoring is organised by educational providers (usually municipalities) and the mentors are trained by the Finnish Network for Peer-Group Mentoring that consists of all Finnish teacher education institutions. (Tynjälä et al., 2019.) According to Tynjälä et al. (Ibid.), in practice, a peer-mentoring group has from four to eight members who meet once a month to discuss their everyday work and possible faced challenges. The meetings are facilitated by trained mentors, but the members of the group can jointly decide the topics and the ways of working. Earlier studies have indicated that this kind of support can offer professional, personal, and social support for participating teachers and influence to the development of the work community (see e.g. Geeraerts et al., 2015; Tynjälä et al., 2019).

In a study (Jokinen et al., 2013) set in Finland, teachers with varying amounts of work experience evaluated essential content areas for support needed during induction. The study found that beginning teachers identify familiarisation with the educational institution, its staff, and the culture as a more essential content area than their more experienced colleagues, who in turn consider collaboration outside the educational institution and familiarisation with the school's management environment as more important than new teachers. Another recent report (Penttilä, 2018) examines the ability of Finnish teacher education programmes to meet the requirements of current working life. According to the results of the report, student teachers consider their study programmes to have succeeded, especially in supporting the practise of different kinds of teaching methods and in offering thinking tools and enhancing readiness to develop oneself as a teacher. On the other hand, student teachers also feel that their studies did not contain enough learning about day-to-day management of teachers' work, such as communication with parents, students, and colleagues, group management, teachers' rights and responsibilities, paperwork, and the encountering of violent or challenging students or students in need of support. Furthermore, the results indicate that teacher education programmes do not provide sufficient support in developing skills for

preventing and addressing bullying, maintaining and supporting a work environment in class, managing one's own work, and home-school collaboration and first aid. (Penttilä, Ibid.)

## 5 Methods

### 5.1 Methodological approaches

A mixed methods approach was used in the study (see e.g. Bryman, Becker, & Sempik, 2008; Morgan, 2007). It included quantitative and qualitative data gathered from closed- and open-ended questions on an electronic questionnaire. As argued by Biesta (2010), one essential issue that generate much discussion concerning mixed methods research relates to the status of knowledge; is it understood as something objective or is its subjective nature emphasised. Here, the respondents' experiences and thoughts were considered subjective and the viewpoint relied on the constructivist approach. Descriptions about experiences were understood as the construction of meaning and understanding that individuals build in a given context (see e.g. Postholm, 2012).

The interest of this doctoral dissertation lied in teachers' competence and professional development, but it did not aim to measure competence per se (see e.g. Blömeke et al., 2015), but rather to identify support needs for professional development. The study examined the support needs, on the one hand, by approaching subjective experiences of beginning teachers, but on the other hand, also ones of principals. Principals can be seen to look at the situation of new teachers partly from the 'outside' as their experiences are related to working with new teachers and are connected to the wider context of education and the school community. However, at the same time, also principals may have been in the position of new teachers early in their careers and reflect these experiences in their responses at some extent.

Using different methods of data collection and analysis, as well as different respondent groups, the intention of this study was to get a deeper and more comprehensive picture of the phenomena under consideration (see e.g. Denscombe, 2010; Heath, 2015). The results of the study are always influenced by the researcher's interpretations of the data, previous research, and reality. That is, the researcher is always part of the reality she explores, and the reality appears differently depending on, for example, temporal, contextual, cultural, and personal factors (Hall, 2015; Heikkinen et al., 2005). Since this study aimed to make interpretations of reality, even if this reality would appear differently to different individuals, ontological basis of the approach can be described as constructivist realism (see Heikkinen Ibid.).

### 5.2 Data collection

The data from the teachers were collected with an electronic questionnaire in all four countries participating in the project from autumn 2015 to spring 2016. As



the project members in different countries were responsible for sharing the invitation and electronic questionnaire to the potential respondents in their countries, there were some variations in the ways that the potential respondents were chosen, contacted, and informed. In addition to the general aims of the ONTP project, the project members also aimed to develop the local situation of new teachers, and in England and Flanders, it was thus considered sensible to focus on collecting data within their own organisation or through their own networks.

In Finland, the electronic questionnaire for beginning teachers was sent to new teachers who had earlier attended a training session for new teachers organised by the Trade Union of Education in Finland. The invitation to participate in the study was also sent to 200 principals chosen by simple random sampling. These principals, working in Finnish-speaking comprehensive and general upper secondary schools, were asked to forward the invitation to new teachers in their schools.

In England, the electronic questionnaire was sent to 60 potential respondents who were studying in or had already graduated from a teacher training programme organised by a teaching school alliance in the North-East of England. In all, 32 responses were received. In Portugal, the invitation to participate in the study was sent to principals in a region called Lisbon and Tagus Valley. As in Finland, the principals were asked to forward the invitation to the potential respondents in their schools. In all, 62 Portuguese new teachers responded. In Flanders, the invitation to participate in the study was sent to 100 teachers working at the provincial schools in the region of Flanders. A total of 75 responses from Flanders were gathered.

In order to build a diverse understanding of beginning teachers' support needs, the study also gathered principals' experiences. Some data from principals were collected in each four country during the ONTP project, but for the purposes of this dissertation, only Finnish principals' responses concerning beginning teachers' support needs were utilised. The data were collected in the autumn of 2016. This data collection process was separate from the data collection process from Finnish beginning teachers and the participating teachers and principals did not work in the same schools. First, the invitation to participate in the study was sent as an online survey to Finnish principals through the Finnish principals' association, which has more than 800 registered members. In addition, personal emails were sent to 250 randomly chosen principals working in Finnish-speaking comprehensive and general upper secondary schools. A total of 104 responses were received.

### **5.3 Participants**

In Finland, data were collected from new teachers with a maximum of five years of work experience after graduation. Most of the teachers reported to work as primary school teachers in primary schools, special education teachers, or subject

teachers or student counsellors in lower or upper secondary schools. Five respondents also worked as a teacher at other school levels, such as vocational education or university.

In addition, data in Finland were collected from principals working mainly as school leaders in primary schools or in lower or upper secondary schools. Around 93% of the participating principals held at least a master's degree, and 95% had completed an examination in school administration or an up to 25 ECTS administration course at a university. Just over half of the principals (55%) reported having more than 10 years' work experience as a principal. Only six principals reported not having any beginning teachers in their school at the time of the study: Almost 80% reported having one to five new teachers, and 14% reported having six or more new teachers in their school during that time. (Study II.)

The participants in England included student teachers attending a school-led postgraduate teacher training programme and beginning teachers already in their first year of teaching. Most respondents were in training or working as subject teachers in secondary education. Two reported working as primary school teachers. In Portugal, participants were new teachers working mainly as primary school teachers or as special education teachers, student counsellors, or subject teachers in basic compulsory education or secondary education. In addition, one respondent reported working as an early education teacher and another as a teacher in vocational education. Four responded that they worked in administrative positions. The respondents in Flanders, in turn, were working in secondary education and some could attend a postgraduate teaching training programme at the same time. Just over half of the participants in Flanders reported that they had participated in in-service training in teacher education, which meant they completed their teaching practice period as hired teachers in schools. Most Flemish respondents were subject teachers or vocational teachers. One reported working as a student counsellor.

Table 2 shows the number of respondents and some basic information about the respondent groups, by country.

**Table 2.** Number of respondents and information about the respondent groups.

	<b>Finland</b>	<b>England</b>	<b>Portugal</b>	<b>Flanders</b>
<b>Beginning teachers</b>	<ul style="list-style-type: none"> <li>• n=145</li> <li>• Beginning teachers working (mainly) as primary school teachers or subject teachers in secondary education</li> </ul>	<ul style="list-style-type: none"> <li>• n=32</li> <li>• Student teachers and beginning teachers working (mainly) as subject teachers in secondary education</li> </ul>	<ul style="list-style-type: none"> <li>• n=62</li> <li>• Beginning teachers working (mainly) as primary school teachers or subject teachers in basic compulsory education or secondary education</li> </ul>	<ul style="list-style-type: none"> <li>• n=75</li> <li>• Student teachers and beginning teachers working (mainly) as subject teachers or vocational teachers in secondary education</li> </ul>
<b>Principals</b>	<ul style="list-style-type: none"> <li>• n=104</li> <li>• Principals working (mainly) in primary and secondary schools</li> </ul>			

## 5.4 Instrument

The electronic questionnaires for beginning teacher and principals included: (1) questions related to background information, (2) questions concerning the different aspects of the teaching profession, and (3) open-ended questions.

The questions that concentrated on measuring support needs in the teaching profession were based on the instrument developed by Professor Hannele Niemi. This instrument has been validated in earlier studies (e.g. Niemi, 2012; Niemi & Nevgi, 2014; Niemi, Nevgi, & Aksit, 2016). Originally, it was created for the Finnish context, and it asked student teachers to assess how well their teacher education programme prepared them for the teaching profession. For the purposes of this study, the instrument was used for gathering the experiences of both beginning teachers and principals about new teachers' support needs.

With the 40 variables in the instrument (see Appendix), the aim was to suit the complexity of teachers' work. The variables were built based on the Finnish national core curricula and international educational policy documents (Commission of the European Communities, 2007; European Commission, 2005) describing teachers' work and competence in a wide sense (see Niemi, 2012). Since the instrument was originally based on the Finnish context and the aspects of teachers' work were based largely on the Finnish point of view, the use of the instrument and its suitability as a data collection method in different contexts were discussed together among the ONTP project members. It was decided that it would also be suitable for use in other countries.

The original Finnish instrument had earlier been translated into English (see e.g. Niemi, 2012) and for the purposes of this study, it was also translated into Portuguese and Dutch. This was done by the ONTP project partners in Portugal and Flanders. The team members working in the field of education translated the instrument into the local language based on the English version. Some local changes were made to the background information questions, but the actual instrument, that is, 40 questions related to aspects of the teaching profession, were kept as consistent as possible. As the project members in different countries were also responsible for inviting potential respondents to join the study, the invitation letters for beginning teachers were produced by the project members in different countries.

The English instructions in the instrument for new teachers read as follows: ‘In the teaching profession, you face many kinds of tasks. Even though teachers have graduated from teacher training programmes, they still need support, counselling, mentoring, or further training for their own professional development. How do you see your own situation?’ Teachers were asked to evaluate how much support or mentoring they felt they needed for certain tasks. They responded using a 5-point Likert-scale: (1) not at all or very little, (2) a little, (3) somewhat, (4) much, and (5) very much. For the purposes of gathering principals’ experiences, the instructions were:

New teachers face many new situations at the beginning of their careers. Teacher training programmes form the base for the profession, but new teachers still encounter situations in which support, counselling, mentoring, or further training is needed for professional development. How would you, as a principal, evaluate beginning teachers’ support needs? In which respects do you think they need more support, counselling, mentoring, or further training?

Principals were asked to respond using the same 5-point Likert-scale.

In addition to the background information questions and questions in the instrument, the questionnaires contained some open-ended questions without limitations on word count. The electronic questionnaire for beginning teachers included six open-ended questions concerning different aspects of teachers’ work. The instructions were: ‘In the following open questions, we ask you to describe your experiences of your earlier teacher training, for example, how well it prepared you for these tasks. You may also reflect on what kind of support you would like to have for these tasks and for your professional development.’ The themes of the questions were: (1) pedagogical work and content knowledge, (2) encountering student diversity and multiculturalism in schools, (3) cooperation in a school community, (4) cooperation with different partners and stakeholders out-

side the school, (5) ethical questions and one's own educational view or philosophy, and (6) one's own professional development as a teacher. The questionnaire for principals included one open-ended question with the instructions: 'In which respects do you think beginning teachers would especially need more support? How are the needs of new teachers addressed in your school?'

## **5.5 Data analyses**

To respond to the first research question and to examine the support needs perceived by beginning teachers in four European countries, the dimensions of support needs for professional development were explored. Principal component analysis (PCA) was chosen instead of exploratory factor analysis because the primary objective was to examine the relationship between the items and the structure forming from the data (see e.g. Costello & Osborne, 2005; Metsämuuronen, 2005). As the number of responses was low in three country-specific data sets, the structure was explored with the data from Finnish new teachers. Using PCA and direct oblimin rotation, an eight-component solution was adopted for further analysis. This solution chosen was based on eigenvalues and the relevance and meaningfulness of the content of the components. The components formed were acceptable on the basis of the KMO-Bartlett test, and they could explain about two-thirds of the variance. Conceptual interpretation was used to examine the content of the components, and they were named according to the common themes in items that loaded significantly on a certain component. Table 3 features the names of the components along with the items loaded on them. It also shows the eigenvalues and rotated sums of the squared loading for the eight-component solution.

**Table 3.** The eigenvalues and rotated sums of squared loading in the eight-component solution (modified from the table in Study I).

Components	Initial Eigenvalues			Rotation sums of squared loadings
	Total	% of Variance	Cumulative %	Total
<b>1. Students' holistic support</b>	15.148	37.870	37.870	7.510
8. Education of a student's whole personality				
9. Development of your own educational philosophy				
12. Differentiating teaching				
13. Preparing students for readiness for daily life				
14. Preparing students for future society				
36. Supporting a learner's individual growth				
37. Acting in conflict situations (e.g. bullying)				
<b>2. Teacher as a researcher</b>	2.479	6.199	44.068	4.305
25. Working as a change agent in society				
26. Cooperative action research				
28. Post-graduate studies in education				
29. Researching your own work				
<b>3. Work outside the classroom</b>	2.046	5.116	49.184	5.627
4. Management of tasks outside the classroom (keeping an eye on students during their breaks etc.)				
6. Administrative tasks (information letters, reports, etc.)				
7. Working with a student welfare group				
10. Confronting the changing circumstances of a school				
11. Developing the school curriculum				
<b>4. Teacher identity</b>	1.765	4.413	53.597	7.827
5. Working in a school community with teachers and other school staff				
20. Independent management of teachers' tasks				
21. Becoming aware of the ethical basis of the teaching profession				
22. Commitment to the teaching profession				
23. Lifelong professional growth				
24. Critical assessment of teacher education				
<b>5. New learning environments</b>	1.625	4.063	57.660	6.488
27. Revising students' learning environments				
32. Confronting multiculturalism				
33. Readiness for media education				
38. Developing applications of modern information technology				
34. Self-regulated learning				
<b>6. Classroom pedagogy</b>	1.521	3.803	61.463	6.602
1. Using teaching methods				
3. Evaluating and grading students				
17. Self-evaluation of your own teaching				
19. Planning my teaching				
30. Evaluating students' learning capacity				
35. Critical reflection on your own work				

Components	Initial Eigenvalues			Rotation sums of squared loadings
	Total	% of Variance	Cumulative %	Total
<b>7. Interaction with students and parents</b>	1.309	3.273	64.736	4.156
2. Management of classroom interaction 16. Promoting the equity of sexes 18. Cooperation with parents				
<b>8. Work in society</b>	1.022	2.556	67.292	5.297
15. Intercultural education 31. Mastering the academic contents of the curriculum 39. Cooperation with representatives of work life 40. Cooperation with representatives of cultural life				

After accepting the eight-component structure, the model was tested on the data gathered from all four countries. Summative variables for every data set were constructed according to the eight components, and the Cronbach's alpha scores were calculated to determine the reliability of the formed dimensions and new summative variables. In the data set for Flanders, two variables (*developing the school curriculum* and *post-graduate studies in education*) were deleted before forming the sum variables and determining the reliability scores, as there were too many missing values in the data set. This caused a minor limitation, but as the aim was not to compare the countries with each other and the Cronbach's alpha scores for sum variables in the Flemish data set were high in general, the Flemish profiles were also included in further analysis (see Study I).

Generally, the reliability values were high for the sum variables (Cronbach's alpha scores varied between .71–.93), with two exceptions: in the Finnish data, the Cronbach's alpha score for the dimension *interaction with students and parents* was only .56, and in the Flemish data, *work in society* scored only .63. During the analysis, whether the seventh dimension, *interaction with students and parents*, should be omitted was considered, as only three items were loaded on it and its variables were only weakly correlated (see e.g. Costello & Osborne, 2005). However, it was included in the structure, because it was seen as a key component of the phenomenon and it scored a relatively high Cronbach's alpha in data sets other than Finland. The eight dimensions and their Cronbach's alpha scores are listed in Table 4. These dimensions were further explored using descriptive statistics.

**Table 4.** Reliability scores of the eight dimensions (modified from the table in Study I).

<b>Dimensions of support needs among beginning teachers</b>	<b>Finland</b>	<b>England</b>	<b>Portugal</b>	<b>Flanders</b>
1. Students' holistic support	.89	.91	.91	.84
2. Teacher as a researcher	.77	.84	.79	.75
3. Work outside the classroom	.77	.74	.82	.71
4. Teacher identity	.85	.89	.93	.82
5. New learning environments	.80	.88	.83	.84
6. Classroom pedagogy	.82	.85	.90	.72
7. Interaction with students and parents	.56	.79	.73	.71
8. Work in society	.73	.84	.76	.63

After exploring the dimensions of support needs, descriptive statistics were examined, including the means and standard deviations. Based on the mean values, the variables were set in descending order to identify the most emphasised support needs. The data from each country were examined separately in order to view country-specific similarities and differences.

The second research question focused on investigating the experiences of Finnish new teachers and principals regarding the support needs of beginning teachers and identifying the similarities and differences they may have in their responses. The research question was answered with both quantitative and qualitative analysis. The quantitative analysis included means, standard deviations, and t-tests, whereas responses to open-ended questions were analysed with inductive qualitative content analysis.

In the original sub-study that concentrated on examining the experiences of Finnish principals (Study II), open-ended responses were analysed with deductive content analysis that based on the structure of support needs formed with PCA from the principals' data. In that sub-study, the aim was to take a closer look at this structure and explore how the support needs were described by the principals (see e.g. Braun & Clarke, 2006). However, for the purpose of examining beginning teachers' and principals' experiences together, it was considered to be more meaningful to examine the open-ended responses with an inductive orientation: the two groups of respondents view support needs from different perspectives, and inductive approach would enable more open examination of the viewpoints of the participants.

The data for inductive content analysis consisted of the open-ended responses of beginning teachers and principals. The length of responses varied from short, one-sentence descriptions to longer ones with several sentences. Fifty pages of text were included in the analysis.



The process of analysis can be described as a dialogue between the data and previous studies (e.g. Hyytinen et al., 2014). The analysis included several phases. In the preparation phase, the data was read through several times to gain a sense of the whole. After that, processes of coding and categorisation were used to form the interpretation of the phenomenon. (see Elo & Kyngäs, 2008; Elo et al., 2014.)

The following is an example of how one quotation is coded, and how two sub-categories and the main category have been formed on this basis. In this example, a principal describes the situation and the support needs of beginning teachers:

New teachers need space to find suitable ways of engaging with their work and being a well-rounded adult for students. Fortunately, there is more than one way of teaching, offering many opportunities in all subjects, so we need to make space to 'let a thousand flowers blossom.' New teachers should also be encouraged to trust themselves and to be who they are.

From this quote, four parts of texts (underlined) were coded and then categorised under two sub-categories. The first one was named 'Accountability and responsibility' (*being a well-rounded adult*). It was reflected from the principal's description that beginning teachers may need support in being an adult who is a responsible and autonomous professional for students. Being an adult in this context can refer to being responsible for students and their families but also for the workplace and profession. The second sub-category was named 'Finding one's own ways of teaching / Self-confidence' (*need space to find suitable ways; make space to 'let a thousand flowers blossom'; encouraged to trust themselves*). In the quote, the principal describes the independent and dynamic process of professional development: New teachers need to create their own suitable ways of working. This independence and self-confidence must be supported and enabled in the school community.

After coding and creating all the sub-categories from the data, the main categories were built. In total, six main categories were created during the analysis. The two sub-categories described above were included to the main category called 'Independent working'.

## 6 Results

### 6.1 Beginning teachers' experiences of their support needs

The first research question investigated how new teachers experience their professional support needs. First, eight dimensions of support needs were examined. Table 5 shows the means and standard deviations of these dimensions in each country. Figure 1, in turn, presents the country-based support need profiles.

**Table 5.** Beginning teachers' support needs as combined variables for the four countries (Study I).

Support need dimensions	n=145	n=32	n=62	n=75
	Finland	England	Portugal	Flanders
	M (SD)	M (SD)	M (SD)	M (SD)
1. Students' holistic support	3.01 (.78)	2.40 (.86)	3.09 (.84)	2.81 (.75)
2. Teacher as a researcher	2.32 (.80)	2.41 (.87)	2.85 (.82)	2.53 (.83)
3. Work outside the classroom	2.97 (.70)	2.41 (.78)	2.79 (.87)	2.38 (.78)
4. Teacher identity	2.03 (.68)	2.05 (.77)	2.46 (1.02)	2.36 (.75)
5. New learning environments	3.00 (.77)	2.32 (.85)	2.82 (.81)	2.88 (.94)
6. Classroom pedagogy	2.82 (.70)	2.21 (.76)	2.62 (.92)	2.98 (.74)
7. Interaction with students and parents	2.64 (.72)	2.25 (.92)	2.58 (.88)	2.66 (.92)
8. Work in society	2.51 (.73)	2.16 (.72)	2.84 (.83)	2.74 (.84)

In general, the differences were quite small in the mean values for the most important support need dimensions. However, the *students' holistic support* dimension received relatively high means in every county-based support need profile. This suggests that beginning teachers across the countries felt they needed more support with this area of professional competence at the start of their careers. Among Finnish and Portuguese new teachers, this dimension had the highest mean values of all eight dimensions. English teachers considered it the second most important support need area, and among Flemish teachers, it ranked third.

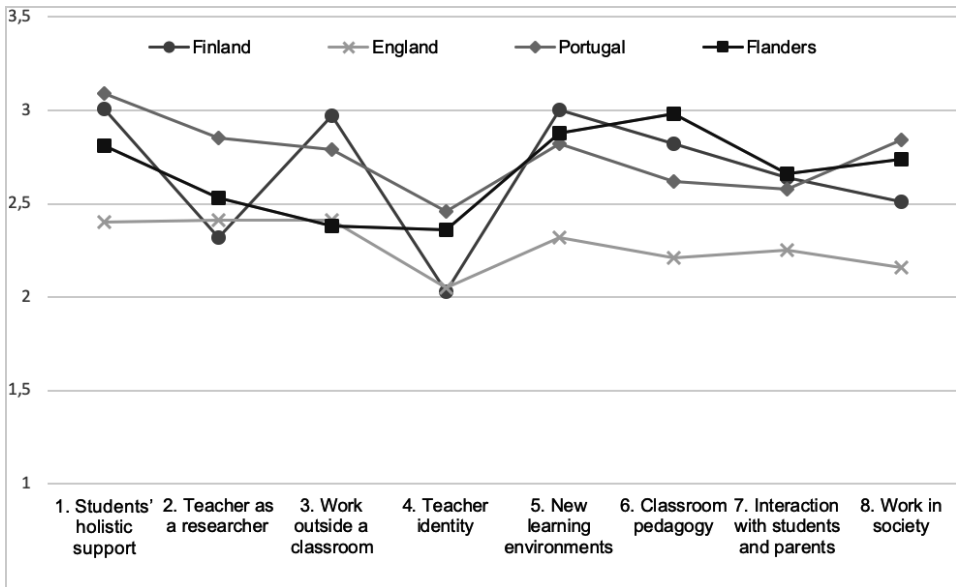


Figure 1. The country-based support need profiles (Study I).

There were also some differences between the countries regarding the emphasis the teachers placed on different dimensions of support needs. For example, the *new learning environments* dimension was evaluated as an especially important support area among Finnish and Flemish new teachers, whereas English and Portuguese respondents prioritised the *teacher as a researcher* dimension as an important need. English new teachers also viewed *work outside a classroom* as one of the more important dimensions, and new teachers in Flanders, in turn, rated *classroom pedagogy* as the most important area of support. The *teacher identity* dimension was considered to be the least central dimension in all four countries.

In general, the means of English new teachers were lower than those of others in several dimensions. One reason for this may be found from the types of initial teacher education and induction programmes. The English teacher education system includes a year-long compulsory induction programme that is commonly organised locally in schools and contains several kinds of support activity, such as mentoring, scheduled meetings with the school leader, observations, and participation in other teachers' class activities (European Commission/EACEA/Eurydice, 2018). This rather intensive support system can ease the stress at the beginning of a career and reduce the need for support. As beginning teachers are used to working with other teachers and mentors, and possibly asking for help when encountering difficult situations, the need for support can be perceived as being lower.

After examining the eight dimensions, the support needs were explored further by focusing on the professional practices or aspects of the work at the item level. All the needs were set in descending order, based on their mean values, in order

to identify the more important ones. The ten most-emphasised support needs in each country are presented in Table 6. It is noteworthy that these most-emphasised support needs had relatively high means among beginning teachers in most countries, indicating that beginning teachers experienced to need much support for certain work task or areas of work.

**Table 6.** Ten most emphasised support needs among beginning teachers (Study I).

	<b>Finland</b>	<b>England</b>	<b>Portugal</b>	<b>Flanders</b>
<b>1</b>	37. Acting in conflict situations (e.g. bullying) M = 3.59 SD = 1.017	37. Acting in conflict situations (e.g. bullying) M = 2.94 SD = 1.315	37. Acting in conflict situations (e.g. bullying) M = 3.36 SD = 1.030	12. Differentiating teaching M = 3.64 SD = 1.135
<b>2</b>	12. Differentiating teaching M = 3.50 SD = 1.015	11. Developing the school curriculum M = 2.75 SD = 1.218	12. Differentiating teaching M = 3.33 SD = 1.012	19. Instructional design M = 3.34 SD = 1.057
<b>3</b>	7. Working with a student welfare group M = 3.35 SD = 0.932	10. Confronting the changing circumstances of a school M = 2.72 SD = 1.224	10. Confronting the changing circumstances of a school M = 3.20 SD = 1.108	37. Acting in conflict situations (e.g. bullying) M = 3.19 SD = 1.194
<b>4</b>	27. Revising students' learning environments M = 3.26 SD = 1.028	12. Differentiating teaching M = 2.69 SD = 1.030	14. Preparing students for future society M = 3.16 SD = 1.098	2. Management of classroom interaction M = 3.16 SD = 1.236
<b>5</b>	30. Evaluating students' learning capacity M = 3.26 SD = 0.941	38. Developing applications of modern information technology M = 2.65 SD = 1.018	8. Education of a student's whole personality M = 3.11 SD = 1.002	38. Developing applications of modern information technology M = 3.08 SD = 1.297
<b>6</b>	38. Developing applications of modern information technology M = 3.19 SD = 1.120	26. Cooperative action research M = 2.65 SD = 1.082	11. Developing the school curriculum M = 3.07 SD = 0.981	33. Readiness for media education M = 3.08 SD = 1.219
<b>7</b>	3. Evaluating and grading students M = 3.19 SD = 1.061	25. Working as a change agent in society M = 2.58 SD = 1.025	13. Preparing students for readiness for daily life M = 3.03 SD = 1.154	30. Evaluating students' learning capacity M = 3.07 SD = 1.039
<b>8</b>	6. Administrative tasks M = 3.17 SD = 0.958	24. Critical assessment of teacher education M = 2.55 SD = 0.850	40. Cooperation with representatives of cultural life M = 3.00 SD = 1.164	3. Evaluating and grading students M = 3.06 SD = 1.089
<b>9</b>	11. Developing the school curriculum M = 3.11 SD = 0.929	3. Evaluating and grading students M = 2.55 SD = 1.150	26. Cooperative action research M = 3.00 SD = 0.991	1. Using teaching methods M = 3.05 SD = 1.026
<b>10</b>	34. Self-regulated learning M = 3.03 SD = 1.030	30. Evaluating students' learning capacity M = 2.45 SD = 0.995	39. Cooperation with representatives of work life M = 2.98 SD = 1.176	27. Revising students' learning environments M = 3.04 SD = 1.252

As shown in the table, teachers in all four countries emphasised *acting in conflict situations* (e.g. bullying) and *differentiating teaching* as central support needs. Conflict situations can be understood as managing inconvenient, complex, or unusual situations that often require quick responses or consideration of multiple perspectives. This item was rated as the most important support need among teachers in three countries. Among Flemish teachers, it was third. Differentiating teaching, or personalising lessons to each student, is an essential part of teachers' work in heterogeneous classes, and it was first on the top-ten list for Flemish teachers and second for Finland and Portugal. English teachers rated it fourth.

The lists also included several other work tasks related to supporting students' individual or holistic growth. These items featured, for example, *education of a student's whole personality* and *preparing students for readiness for daily life*. Further, work tasks related to evaluations were considered to be a major support need by several groups of new teachers.

Another central area of support was related to facing the changes that occur in schools and in society at large, including, for example, *revising students' learning environments* and *developing the school curriculum*. Important support needs included work tasks related to the development of teaching and activities in the school community. Interestingly, Portuguese new teachers rated several work tasks related to change (e.g. *preparing students for future society*) and connections outside a school (e.g. *cooperation with representatives of cultural life*) as central support needs. The Flemish beginning teachers, in turn, rated several work tasks related to classroom pedagogy as essential support needs, although teachers in the other countries did not rate them so highly. This may be because many of the Flemish respondents, although already working as a teacher, could at the same time, still be completing their teacher training that focused especially on pedagogical studies.

The results related to the first research question can be summarised as follows: beginning teachers in these four countries perceived supporting students' holistic development as an important support need. At the item level, acting in conflict situations, such as when bullying occurs, was mentioned as an essential support need by all the teacher groups. In addition, teachers in all four countries emphasised their need for support in differentiating their teaching in heterogeneous classes. However, the responses also reflected some country-specific support needs.

## **6.2 Finnish beginning teachers' and principals' experiences of early-career teaching support needs**

The second research question focused on the experiences of beginning teachers and principals in Finland specifically. First, support needs were examined at the item level. All the support needs were sorted according to their mean values, from most important to least important. The ten most emphasised support needs were

then further examined (see Table 7). It was found that both new teachers and principals emphasised several of the same support needs in their responses. More precisely, six out of the ten most emphasised support needs were the same for both groups. Each of these was related to a work task that requires authentic working experience in order to be developed. New teachers in the four countries and Finnish principals rated *acting in conflict situations* and *differentiating teaching* as essential support needs. Both Finnish new teachers and principals also perceived that support is needed for *working with a student welfare group* (referring to multi-professional groups that help students with difficulties) as being very important. The rest of the common items were related to supporting students' individual learning, evaluation, and facing changes in schools. The support needs that were only mentioned by new teachers included administrative tasks, whereas principals emphasised the support needed for managing social situations and cooperating with parents.

**Table 7.** Ten most emphasised support needs among Finnish beginning teachers and principals (Study III).

	Beginning teachers		Principals	
1	37. Acting in conflict situations (e.g. bullying)	M = 3.59 SD = 1.017	7. Working with a student welfare group	M = 3.85 SD = 0.747
2	12. Differentiating teaching	M = 3.50 SD = 1.015	37. Acting in conflict situations (e.g., bullying)	M = 3.79 SD = 0.746
3	7. Working with a student welfare group	M = 3.35 SD = 0.932	2. Managing classroom interaction	M = 3.64 SD = 0.799
4	27. Revising students' learning environments	M = 3.26 SD = 1.028	18. Cooperation with parents	M = 3.62 SD = 0.828
5	30. Evaluating students' learning capacity	M = 3.26 SD = 0.941	3. Evaluating and grading students	M = 3.42 SD = 0.759
6	38. Developing applications of modern information technology	M = 3.19 SD = 1.120	12. Differentiating teaching	M = 3.41 SD = 0.866
7	3. Evaluating and grading students	M = 3.19 SD = 1.061	30. Evaluating students' learning capacity	M = 3.39 SD = 0.852
8	6. Administrative tasks (information letters, reports, student transfers to other groups or schools, work diaries)	M = 3.17 SD = 0.958	8. Developing the student's whole personality	M = 3.37 SD = 0.778
9	11. Developing the school curriculum	M = 3.11 SD = 0.929	11. Developing the school curriculum	M = 3.33 SD = 0.908
10	34. Self-regulated learning	M = 3.03 SD = 1.030	10. Confronting school's changing circumstances	M = 3.32 SD = 0.839

After examining the support needs that were considered to be the most important by Finnish new teachers and principals, the statistical differences between their

responses were calculated for all 40 items. Differences were indicated in 13 support needs (see Table 8). In general, principals' responses saw higher mean values than those of new teachers. Several of the 13 support needs in which statistical differences were identified were related especially to professional growth and development of one's own teachership. Many of them were also linked with ethical considerations or the values of the profession (e.g. *developing one's own educational philosophy* and *becoming aware of the ethical basis of the teaching profession*). These results suggest that differences exist in the ways new teachers and principals perceive new teachers' support needs. Principals seems to emphasise the more systematic support needed for ethical considerations and professional growth, which are not experienced as being central by new teachers. This was reflected in the responses of new teachers in the different countries: the *teacher identity* dimension was rated as the least important support need by beginning teachers in every country. The reason for the differences in the viewpoints of principals' and beginning teachers' may be because new teachers feel that initial teacher education programmes already provide them with sufficient competence to address these issues when they are in the workforce. Alternatively, in the midst of the situation, new teachers may find other support needs more central.

In addition, statistical differences were found in ratings about the support needed for cooperating with parents and managing classroom interaction. While beginning teachers did not experience a need for much support in these areas of work, principals viewed them as essential support needs.

**Table 8.** Differences in beginning teachers' and principals' mean values of support needs and results of the t-tests (significant at 1% level) (Study III).

Professional competence	Beginning teachers	Principals	t
2. Managing classroom interaction	2.97 (1.151)	3.64 (.799)	5.490**
4. Management of tasks outside the classroom (monitoring students during their breaks etc.)	2.26 (.972)	3.17 (.830)	7.950**
5. Working in a school community with teachers and other school staff	2.06 (.911)	3.13 (.809)	9.570**
7. Working with a student welfare group	3.35 (.932)	3.85 (.747)	4.639**
9. Developing one's own educational philosophy	2.45 (.950)	3.27 (.766)	7.537**
13. Preparing students for daily life	2.70 (.973)	3.28 (.841)	4.866**
18. Cooperation with parents	2.73 (.915)	3.62 (.828)	7.953**
20. Independent management of teachers' tasks	1.94 (.840)	2.57 (.810)	5.855**
21. Becoming aware of the ethical basis of the teaching profession	1.95 (.811)	2.65 (.932)	6.184**
22. Commitment to the teaching profession	1.92 (.862)	2.56 (.993)	5.298**
23. Lifelong professional growth	2.30 (.994)	2.76 (.950)	3.693**
29. Researching one's own work	2.26 (.993)	2.79 (.910)	4.269**
35. Critical reflection on one's own work	2.43 (.927)	2.98 (.870)	4.755**

*Note: Data are shown as mean (SD) \*\*p < .001.*

After this quantitative examination, the focus shifted to the open-ended responses. Qualitative descriptions from both new teachers and principals were categorised under six partially-overlapping themes (see Table 9): *teaching and pedagogy, supporting students' comprehensive individual growth, professional identity and growth, independent working, work in a school community, and collaboration with out-of-school partners*. These six categories have some similarities with the structure of support needs built first with PCA (e.g. 'Students' holistic support' vs. 'Supporting students' comprehensive individual growth'; Classroom pedagogy vs. 'Teaching and pedagogy'), although it also offered some new perspectives and deeper understanding on the phenomenon under study.

**Table 9.** Six themes of professional competence and the support needs related to them (Study III).

<b>Teaching and pedagogy</b>	<b>Supporting students' comprehensive individual growth</b>	<b>Professional identity and growth</b>
<ul style="list-style-type: none"> <li>• Managing classroom interactions</li> <li>• Implementing the curriculum</li> <li>• Designing teaching</li> <li>• Knowledge of new and versatile teaching and working methods</li> <li>• Subject knowledge</li> <li>• Competence for evaluation</li> <li>• Knowledge of new learning environments</li> </ul>	<ul style="list-style-type: none"> <li>• Supporting student's comprehensive growth</li> <li>• Emphasising learning instead of teaching</li> <li>• Differentiating teaching</li> <li>• Knowledge of special education</li> <li>• Knowledge of student welfare services and models</li> <li>• Multicultural competence</li> </ul>	<ul style="list-style-type: none"> <li>• Developing professional identity</li> <li>• Reflecting and developing one's own work and competences</li> </ul>
<b>Independent working</b>	<b>Work in a school community</b>	<b>Collaboration with out-of-school-partners</b>
<ul style="list-style-type: none"> <li>• Acting independently in complex, challenging and unexpected situations</li> <li>• Accountability and responsibility</li> <li>• Finding one's own ways of teaching / Self-confidence*</li> <li>• Setting boundaries for one's own work and accepting own professional incompleteness</li> </ul>	<ul style="list-style-type: none"> <li>• Having work tasks outside a classroom</li> <li>• Getting familiar with the school culture</li> <li>• Interaction and collaboration among colleagues</li> <li>• Renewing and developing objectives and practices of the school community</li> </ul>	<ul style="list-style-type: none"> <li>• Collaboration with other teachers / professionals</li> <li>• Collaboration with parents or legal guardians</li> <li>• Collaborating with community members</li> </ul>
<p>* <i>Self-confidence was added after Study III was first published</i></p>		

On one hand, the open responses provided a more detailed understanding of the individual support need dimensions; respondents described in more detail those professional tasks and practices for which they felt beginning teachers needed support, such as in supporting the comprehensive growth of the student. On the other hand, the responses also reflected the wider processes of developing professional expertise. This fact was evident in the descriptions of the support needed



for developing independent working, for example. In this regard, principals highlighted the support needed to learn to act independently and adaptively and to increase self-confidence and acceptance. In the following section, each theme of professional competence and its main support needs are briefly described.

In general, the quantitative evaluations did not much emphasise support needs related to teaching and pedagogy. However, they were mentioned to some extent in the open responses. This theme includes managing classroom interactions, designing teaching, and evaluating students' learning. In addition, both new teachers and principals emphasised the centrality of support in acquiring knowledge of new and versatile teaching methods and acting in and developing new learning environments. However, these support needs were not necessarily seen as important only for new teachers but rather they were connected to wider, career-long professional development. As described by one of the principals: 'Both new and more experienced teachers need support in introducing new teaching methods and a new curriculum.'

An essential theme of competence in which support is needed concerns supporting students' comprehensive individual growth. In their open-ended responses, participants described this theme from several perspectives. This should include not only academic skills but also wellbeing and socio-emotional skills. Some beginning teachers and principals experienced that new teachers needed support to shift their focus from teaching to students' learning. Also, the support needed to differentiate their teaching was emphasised along with the need for knowledge about special education and student welfare services and models. In particular, several beginning teachers expressed their concern about their lack of competence in working in line with Finland's Pupil and Student Welfare Act and student welfare services, as well as working in cooperation with authorities in this field. One area of support that was only mentioned by new teachers was related to multicultural competence. It was mentioned in several descriptions, although neither new teachers nor principals emphasised it in their quantitative survey responses. For example, beginning teachers wished to develop competence in teaching Finnish as a second language and in cultural awareness. One beginning teacher wrote:

I don't consider students' different cultural backgrounds as a problem or something that we should make a big deal about. We're all human beings. Knowledge about a variety of cultures and related habits would be beneficial.

Another theme that arose from the open-ended descriptions is related to new teachers' professional identity and growth. Some principals mentioned that beginning teachers need support in finding and forming their teaching identity and in reflecting their value base and their concepts of education and learning. New

teachers, for their part, discussed the topic with particular reference to external factors: In their responses, teachers described how professional growth requires someone to talk with, time allocated to reflecting, a steady work situation, and opportunity to attend training sessions.

Respondents also discussed the support needed for independent working. These descriptions often reflected the autonomy of the work and the evolving expertise. Principals particularly highlighted this area of competence. According to them, new teachers need support to learn how to act in complex, unique, and often unexpected situations, as well as to adapt to changing conditions. One principal wrote:

Working days are hectic, and a teacher should know how to change plans rapidly. Lessons and workdays don't often appear as planned from the previous evening. In the beginning, a teacher needs support in coordinating the pedagogical aims and surprising variables.

Some principals highlighted the importance of learning accountability and responsibility. Likewise, finding one's own ways of working and developing self-confidence were viewed as important. In Study III, this area of competence was simply labelled as *Finding one's own ways of teaching*, but in this summary of the results, the concept of developing self-confidence was included in Table 8. Some respondents described the importance of supporting new teachers in developing their own ways of working instead of copying ready-made plans or settling for the views of others. Developing independence and increasing self-confidence can go hand in hand. One principal wrote:

New teachers need space to find suitable ways of engaging with their work and being a well-rounded adult for students. Fortunately, there is more than one way of teaching, offering many opportunities in all subjects, so we need to make space to 'let a thousand flowers blossom.' New teachers should also be encouraged to trust themselves and to be who they are.

Both beginning teachers and principals described how learning to set boundaries for one's own work is important. In the turmoil of busy and complex work, teachers must learn how to manage time and set limits for work. This support need was also sometimes connected with the ability to accept one's own professional incompleteness. Several respondents described the beginning of the career as full of pressure and feelings of uncertainty, inadequacy, and incompetence. New teachers can suffer from emotional pressure when trying to perform well and meet the expectations set for their work. This is why some principals highlighted the importance of allowing time for learning and to be kind to oneself: 'Everything does

not always succeed. [Support is important so that new teachers] are not immediately exhausted by different pressures and requirements. They have to learn to be kind to themselves—everything in every class does not always succeed.'

In their open-ended responses, new teachers and principals raised support needs related to working in a school community. Some highlighted the support needed to understand the extent of the teaching profession: it involves not only actual teaching but also participating in activities in the school community and collaborating with colleagues. Some respondents felt that new teachers need support in order to become familiar with the goals, rules, and culture of their specific school. New teachers especially wanted to receive more support relating to understanding the legislation and rules of professional confidentiality.

Working in a school community also requires active participation and the ability to review and develop curricula and practices in the school community. One principal stated that new teachers 'need support so that they can really renew and change practices at school. A working community that's worked together for a long time may sometimes frustrate an eager new person.'

Finally, collaboration with out-of-school partners was seen as an area in which support was needed. These possible partners included other teachers and professionals (such as psychologists or social workers), parents or guardians, and different community members (such as social-service authorities or working-life representatives). Support for coordinating with parents in difficult situations was mentioned several times, both by beginning teachers and principals.

To summarise the results of the second research question, both Finnish new teachers and principals emphasised several of the same support needs, such as acting in conflict situations, differentiating teaching, and working with student welfare groups. In addition, both groups viewed work tasks related to developmental work, particularly development of the school curriculum, as a central support need. Examination of the statistical differences between the responses of new teachers and principals revealed that in general, principals experienced support needs related to ethical considerations and the development of professional identity as more central than the new teachers did. In addition, the results of the open responses offered a more detailed picture of particular support needs, such as supporting students individually and working in the school community. Furthermore, the findings of the open responses highlighted the support needed for developing professional expertise.

## 7 Discussion

### 7.1 Discussion of results

This doctoral dissertation has examined the support needs of beginning teachers perceived as central to their professional development. The topic was first examined by focusing on the experiences of beginning teachers in four European countries: Finland, England, Portugal, and Flanders. After that, the support needs of new teachers were investigated by focusing particularly on the experiences of Finnish teachers and principals.

In this study, professional development has been considered to be a dynamic process that continues throughout the career; competence or expertise are not static or unchangeable but are highly context- and time-specific (see e.g. Blömeke et al., 2015; Corno, 2008; Soslau, 2012). Although the first years of work can be a challenging and sensitive time for beginning teachers, the results of the study indicate that the support needs of new teachers are not limited only to those activities or work tasks that enable teachers just to cope at work in classrooms (see e.g. Fuller and Bown, 1975). Instead, they reflected the aim to meet the complex and broad requirements and challenges set for the teaching profession today (see e.g. Livingston, 2018; Toom & Husu, 2018).

Our changing society and world create new requirements for the work of teachers. In this complex profession, teachers demonstrate their competence in a variety of settings and with several collaboration partners (Livingston, 2018; Toom & Husu, 2018). As a result, this study has shown that many beginning teachers' support needs are related to different aspects of professional competence. Here, the support needs of beginning teachers were connected to certain professional tasks, practices, and challenges of teachers' work, but at the same time, they were linked to the wider process of developing professional expertise. Next, the central perspectives on support needs found in this study are discussed.

#### 7.1.1 Supporting students' comprehensive individual growth

The current learning paradigm emphasises the active role of a learner (see e.g. Livingston, 2012; Lonka et al., 2015; Niemi, 2009). Instead of focusing only on the content or how to share it with a group of students, a teacher must consider how to differentiate teaching in order to support individual students and to facilitate their learning processes (e.g. Brailas et al., 2017; Drew & Mackie, 2011; OECD, 2019). The results of this study show that new teachers need support in guiding students' individual growth. This need for support refers not only to teaching in the classroom but also to support activities occurring in a variety of contexts

in the school. Work responsibilities related to differentiating teaching and encountering the situation of individual students have also been connected to new teachers' support needs in previous studies (e.g. Bezzina, 2006; Fantilli & McDougall, 2009; Gaikhorst et al., 2017; Veenman, 1984). Taken together, the results of this dissertation and earlier studies underline the importance of supporting new teachers in this competence area.

Interestingly, the results of this dissertation suggest that the focus of beginning teachers is not on themselves but rather on students' learning. Earlier studies, especially those depending on stage models (see e.g. Fuller & Bown, 1975; Huberman, 1992), have described the professional development of new teachers as a shift in focus from self to students. However, the findings of this study indicate that several support needs mentioned by new teachers at the beginning of their careers are related to supporting students' comprehensive growth. This finding implies that the focus of new teachers is already on others—not only on their own practices.

It also seems that the complex nature of teachers' work contributes to this specific support need: teaching takes place in a class with large group of students who all have their own personalities, backgrounds, and individual needs (Cajkler & Hall, 2012; Livingston, 2018). Although initial teacher education can offer tools to develop the professional competence necessary to encounter every student individually, gaining that competence also requires authentic situations and long-term relationships with students and colleagues (Feiman-Nemser, 2001; Knight, 2002).

In addition, the results from the transnational and Finnish contexts indicate that enhancing students' holistic growth is an important area of support. As defined by Tirri (2011), holistic pedagogy considers the cognitive, social, moral, emotional, and spiritual dimensions of learning. In Finland and elsewhere, this is visible in educational objectives that emphasise a school's role in supporting not only students' learning of academic skills, but also their socio-emotional wellbeing and development (see e.g. Finnish National Agency for Education, 2016; OECD, 2019). Holistic pedagogy can also refer to the teaching of generic skills that are crucial in acting and working in a (future) society (Lee & Tan, 2018; Teo, 2019; Yue, 2019).

Support for classroom pedagogy and actual teaching was not generally seen as central in the results of this study. This is in line with other recent findings (see e.g. Penttilä, 2018). Despite this, work tasks related to assessing students were considered to be an important area for support. This may result from teachers being required to support students' individual and holistic learning. It can be difficult to evaluate students objectively and equally while acknowledging at the same time the individual factors that influence the learning process. In addition, the support needed for evaluation and assessment may stem from a broader shift in pedagogy,

learning objectives, and content. When the focus in teaching is on students' learning processes or acquiring generic competence instead of specific information, the assessment of learning becomes more complex (see e.g. Kapsalis et al., 2019).

### **7.1.2 Working in the school community**

When teaching is considered to be a profession, the development of work tasks and processes becomes a central part of the job (see e.g. Darling-Hammond, 2005; Mockler, 2005). Development of these practices in the work community requires collaboration skills and an understanding of the prevailing practices in a certain community. This competence is not developed in a vacuum, but always in a particular context (Feiman-Nemser, 2001; Day & Gu, 2007).

Previous studies investigating new teachers' support needs have emphasised the need to support teachers' integration into the school community (e.g. Fantilli & McDougall, 2009; Jokinen et al., 2013; Grimsæth et al., 2008; Menon, 2012). Similar results are shown in this study. However, instead of mere integration, responses also highlighted a community renewal perspective: support was requested in, for example, developing a school curriculum and learning environment (see also e.g. Geeraerts et al., 2015).

As described by several researchers and in policy-making documents (e.g. Caena, 2014; Conway et al., 2009; Toom & Husu, 2018; OECD, 2019), the teaching profession is largely involved with collaborating, acting, and influencing in a range of contexts and networks. Teachers' work includes several collaboration partners, such as colleagues, families, and actors in local communities (Conway et al., 2009; Oinas et al., 2017; Toom & Husu, 2018).

One key area of support needs, in which beginning teachers in every country felt they needed more support was related to acting in conflict situations, such as when bullying occurs. At the beginning of their career, new teachers often encounter these situations without having had practical experience on how to handle them. School bullying is related to supporting students' comprehensive growth and wellbeing, but also to working in the school community. Collaborating with a range of partners, such as students, parents, and colleagues, is essential to address these situations. The present study also indicates that support in working with student welfare groups is an important need, particularly in the Finnish context. The aim of this multi-professional collaborative work is to create support systems for students' welfare and individual development and growth. Work in these groups is guided by legislation and the guidelines of national curricula. Although Finnish teacher education includes content related to this topic, a deeper understanding of the subject and practical ways of working are often only learned when in the workforce. Working practices may also differ from one school to another, which is why competence requires the understanding of and ability to act within a particular community (see e.g. Day & Gu, 2007).

### **7.1.3 Developing one's own work**

The teaching profession involves continuous learning and development of one's own work and practices (see e.g. Charteris & Smardon, 2014; Niemi & Nevgi, 2014). New teachers who participated in this study wanted to develop their competence in several professional tasks. These could include, revising students' learning environments, utilising digital technology, and carrying out cooperative action research.

Having teachers involved in continuous professional learning is much emphasised in Finland (see e.g. Lavonen, 2018), and in general, participation in a range of in-service training activities is high (Kola-Torvinen & Kumpulainen, 2020). In their open-ended responses, Finnish new teachers described how professional growth often requires someone to talk with, time allocated to reflecting, a steady work situation, and opportunity to attend training programmes. However, these conditions may not always be met because of the hectic work in schools. The recent report (Kola-Torvinen & Kumpulainen, 2020) indicated that young teachers in Finland were less likely than other age groups to participate in in-service training. This may partly be because early employment contracts can often be fixed-term contracts, which can make it difficult to undertake in-service training. Furthermore, as indicated by the recent TALIS survey (OECD, 2019; Taajamo & Puhakka, 2019), there is still a lack of induction or mentoring activities in Finland, and many beginning teachers have not had an opportunity to participate in support activities of this type.

### **7.1.4 Developing expertise**

In this doctoral dissertation, teachers' professional learning has been viewed as a development towards expertise. Expertise is not a straightforward consequence of work experience, although it is developed by contributing to and participating in the work community (see e.g. Athanases et al., 2015; Christiansen et al., 2018; Ropo, 2004). Rather, it is a constantly increasing ability to act meaningfully and affect matters in the complex and changing settings of work (Christiansen et al., 2018; Eteläpelto et al., 2014; Miller, 2016).

The study found that learning and development are particularly connected with the need to become independent and to learn adaptivity in working with diverse and changing situations. In the countries that consider teaching to be a profession, teachers' work is highly autonomous (see e.g. Demirkasimoğlu, 2010; Niemi & Lavonen, 2020; Ro, 2020). For example, in Finland, teachers are free to choose the pedagogical methods and topics on which to focus their teaching (Vahtivuori-Hänninen et al., 2014). In this study, principals highlighted the need to support new teachers in developing competence in acting autonomously in a variety of professional tasks in the school community. Teachers were also understood to

need to learn responsibility, which can be seen as the other side of the autonomy coin (see also Mockler, 2005).

The results also indicate that beginning teachers' support needs include elements of developing routine and adaptive expertise (e.g. Anthony et al., 2015; Athanases et al., 2015; Christiansen et al., 2018; Timperley, 2013). On one hand, beginning teachers need to learn certain routines and rules for their work in the school community, but at the same time they must learn to adapt, develop, and change their ways of acting. This issue, among others, was reflected in the need for support in helping individual students and differentiating teaching, managing social activities, and developing the school curriculum and activities.

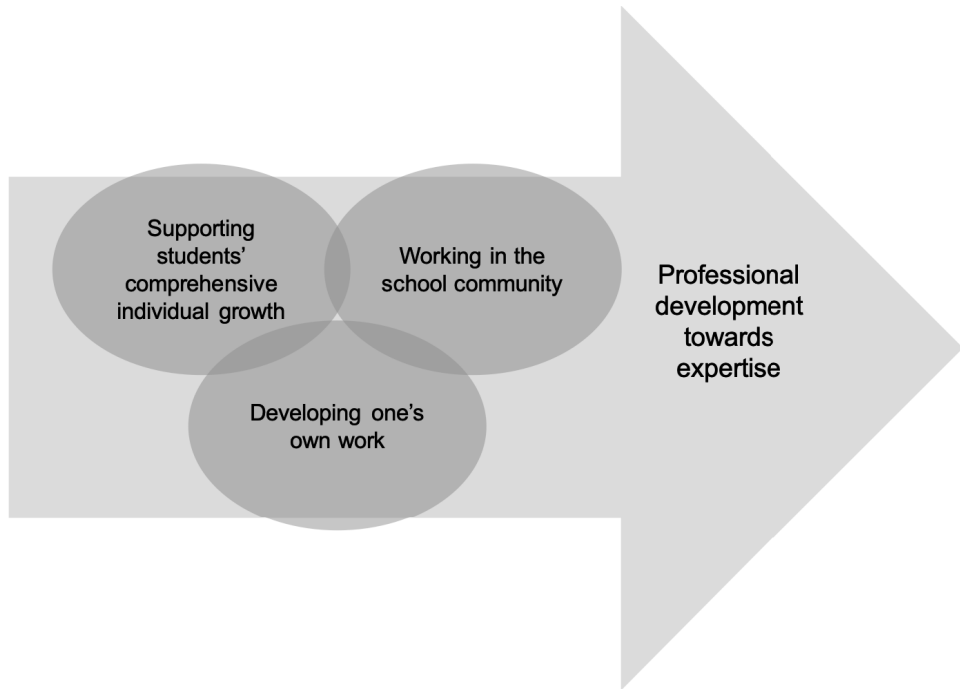
Changing situations require flexibility from a teacher (e.g. Blömeke & Kaiser, 2017), as well as the ability to change plans and assess one's own work (see also Soslau, 2012). The results of this study showed that beginning teachers need support to deal with complex and sometimes challenging and unexpected school-day situations. This competence combines several components, such as the ability to act in conflict situations, the ability to manage social situations and apply certain common rules and ethical principles, and the ability to regulate one's own emotional state. Developing professional expertise thus appears here as a multifaceted and challenging process, throughout which one should act as a professional while, at the same time, learning to be one. Similarly, Feiman-Nemser (2001, p. 1027) has described, by referring to Schön (1987), how beginning teachers must demonstrate professional competence that they do not yet have and that they can only acquire by participating in work situations.

Professional competence includes not only knowledge and skills, but also components of personal orientations and professional wellbeing (Metsäpelto et al., 2020). This study found that new teachers need support in these components, results that are in line with previous research (see e.g. Geeraerts et al., 2015). Principals emphasised the importance of giving new teachers time to grow in order to enable and support professional development. Processes of growth are both complex and broad, and competence development requires multiple iterations and opportunities to work on different tasks. In addition, beginning teachers were seen to need support in learning to cope with a complex life in the workforce, which requires the ability to set boundaries of one's own work. Furthermore, new teachers were said to need support in gaining positive experiences that build their self-esteem and confidence in their own abilities.

To conclude the themes discussed above, the present doctoral dissertation found that beginning teachers' support needs are related to several aspects of professional competence, suggesting that at the beginning of the career professional development occurs across several dimensions of competence simultaneously. Importantly, the study indicates that several support needs do not only concern teachers' own actions and practices in their classrooms but are linked to wider



activities and other people in the school community: For example, instead of needing support to teach, beginning teachers are asking for support to help students learn and develop comprehensively. Furthermore, the study showed that support needs are related in part to certain professional tasks or practices but are also linked to comprehensive professional development towards expertise.



**Figure 2.** The key perspectives on beginning teachers' support needs for professional development.

The present study has identified three overlapping competence areas in the support needs of beginning teachers', namely, *supporting students' comprehensive individual growth*; *working in the school community*; and *developing one's own work*. These are all part of the wider process of *developing expertise* that can be understood as a holistic continuum of professional development relating to all aspects of the teaching profession (see Figure 2).

### **7.1.5 Support needs are contextual and subjective**

The results of this study confirm that the support needs of new teachers are partly common, but also subjective and perspective- and context-related (see also e.g. Eisenschmidt et al., 2013; Livingston, 2017). Although new teachers from different countries shared many of the same support needs, there also appeared to be differences in the country-based profiles, suggesting that different educational contexts have their own essential support needs. For example, Flemish beginning teachers rated work tasks related to pedagogy and teaching in the classroom as

some of their most important support needs, whereas teachers in other countries did not rate them so highly. These differences may be due to a number of factors, such as the content of each country's initial teacher education, the general work tasks of a teacher, or the induction offered in schools (see e.g. Feiman-Nemser, 2001; Dall'Alba & Sandberg, 2006; Day & Gu, 2007).

Support needs also reflect the demands placed on the teaching profession at a certain time. In this study, this was made evident by the responses of Finnish new teachers and principals, who rated the development of a school curriculum as an essential support need for new teachers. At the time of data collection, nationwide curriculum reform was underway in Finnish basic and higher secondary schools, and this ongoing process, through which schools designed and created their own more detailed local curricula, may have affected the emergence of this support need. This assumption is supported by the results of a previous study (see Niemi, 2017) in which new teachers' experiences were gathered using the same instrument. In this earlier study, curriculum planning was not among the most emphasised support needs, which may stem from the fact that this area of work was not topical at that moment (Niemi, 2011; Niemi, 2017).

Finnish principals generally estimated the need for support to be greater than what the teachers themselves did. This result is in line with some previous research (see e.g. Mikser et al., 2020). The reasons for these differences may be due to a range of factors. For example, teachers may experience that initial teacher education has offered them quite strong professional competence in general (see also Niemi, 2011, 2017). It may also be that principals assess the situation of new teachers in particular based on general discussions or discourse associated with the induction phase. Furthermore, principals often have more professional experience and view the situation of beginning teachers from a school community perspective and may relate their ratings to the wider understanding of work-related competences and professional development.

One difference in the responses of Finnish new teachers and principals was related to cooperation with parents. Beginning teachers did not experience the need for support in this matter, while principals mentioned it as a key area of support. This result is consistent with the latest results of the TALIS report (OECD, 2019), in which Finnish teachers (not necessarily new teachers) evaluated cooperation with parents and legal guardians as the least important aspect of professional development. These results are also similar with the study by Mikser et al. (2020), who proposed that the differences in beginning teachers' and principals' ratings could be because principals, perhaps unconsciously, may reflect the work task through their own, possibly stressful, experiences with parents. The differences in results may also be related to the ways the need for support was understood when responding. Principals might not have thought of this need as a skill to develop, but rather as a work task that may require social or emotional support from the school leader or colleagues.

## 7.2 Ethical consideration

This doctoral dissertation has followed the research guidelines of the Finnish National Board on Research Integrity TENK (2019) and of All European Academies (2017). In addition, the criteria for the open-data policy of the University of Helsinki (2019) has been considered in the process of conducting and reporting the research.

Participation in the study—that is, filling out the questionnaire—was optional for both beginning teachers and principals. Respondents were informed about the project for which this research was conducted, as well as the purpose of the study, the procedures of data collection, and the ways the data would be used. Although project partners in different countries were responsible for collecting data in their own countries, the data were stored on the server of the University of Helsinki. These data did not include direct identifying information.

The aim has been to treat respondents with respect at all stages of the research. This was visible in the ways results are reported: among other ways, qualitative results and quotes from the data have been presented anonymously, and schools cannot be identified. In general, the research topic of the study was not sensitive, but it was acknowledged that reflecting on and sharing one's own experiences can sometimes arouse a variety of emotions. In the setting of this study, this issue could only be considered by sharing the contact information of the project members or researchers with respondents in case they wanted to talk about their awakened feelings with us.

## 7.3 Methodological reflections and limitations of the study

A mixed methods approach was used in this study. By collecting data through both quantitative and qualitative methods and from different respondent groups, the aim was to obtain a diverse picture of beginning teachers' support needs for professional development (see e.g. Bryman et al., 2008; Morgan, 2007). The research approach and the methods chosen seem to support this objective well: the questionnaire was used to map the support needs of new teachers based on the assumption that teaching is a profession that includes extensive work responsibilities. The accepted eight-component structure of support needs were tested with the data gathered from all four countries. Generally, the Cronbach's alpha scores were relatively high in every country-based data set, and the structure of support needs was clear. This suggests that that the built structure is meaningful in representing the areas of support among beginning teachers. Furthermore, the accepted structure shares several similarities with models from previous studies (Niemi, 2011; Niemi & Nevgi, 2014), although some variations in the content of the dimensions also occurred. Open answers, in turn, supported and confirmed the results obtained through quantitative methods. They also deepened them and brought to light aspects such as the development of autonomy and independence,

that could not have been achieved by mere quantitative data and analysis. In addition, the solutions and interpretations derived during the qualitative analysis have been described in the sub-studies (see Studies II and III).

However, some limitations remain. First, the instrument that was used to collect data from beginning teachers in different countries was originally designed for the Finnish educational context. The definition of ‘teachers’ competence’, though, is not static; it is context-related and constantly changing (Caena, 2014). Although several competence areas of teachers’ work are similar in different countries, every school system is still unique (Conway et al., 2009). This may have contributed to the fact that not all the competence areas in the instrument were relevant or understandable in different national contexts. Furthermore, there may be cultural differences in using scales when responding to questionnaires. The aim was not to compare the mean values between countries, but rather to examine the overall picture of support needs.

The respondent groups also differed across countries. The number of respondents and their situations varied from one country to another. Because data collection was implemented separately by local project members, there was no consistent strategy in the search and the number of respondents. Only in Finland were invitations to participate in the study sent to randomly selected schools and principals located in different parts of the country. In other countries, invitations were sent to respondents working in a particular area or school level. The situation of the respondents could also differ from one country to another: for example, in Finland, qualified teachers with up to five years’ work experience were invited to respond, while in England and Flanders some respondents were still completing their teacher education.

In addition, this study has examined the range of support needs of new teachers, but at the same time it has identified key support needs for early career development. The focus was on averages and not on the possible differences between responses. It still needs to be noted that the situations of individual teachers and schools differ, and this variance can have an influence on the experiences of teachers and principals (see e.g. Blömeke & Kaiser, 2017; Gaikhorst et al., 2017). In addition, the survey forced respondents to choose between set options, and that may have led them to choose an option that does not represent their real experience.

In the absence of interactivity, there was neither certainty concerning whether the questions in the survey were understood in a similar way. In addition, with the closed questions, it was not possible to know how respondents understood the various support needs listed or whether the context of respondents affected their responses. Some of the support needs may have been emphasised because of the content of initial teacher education, the complex nature of the work, general discourse related to the topic, or a lack of support in the workplace. On the other

hand, the small emphasis placed on some support needs may be because a particular competence area was not seen as central to the respondents' own context. For example, the need for support in multicultural competence may have been neglected if one's school community is homogeneous. The fact that one aspect of the work has not become a major need for support is not necessarily because one's own competence in this area is considered sufficient but rather that it has not been seen as a key part of the work.

The open-ended questions and the information collected with them supplemented the data collected by quantitative methods and offered important insights for the support needs of beginning teachers. They also indicate some differences in the ways support needs were understood. Some of the respondents described support needs related to competence and their own abilities, but sometimes they discussed them as resources or characteristics of the school community. These differences indicate the need to examine the topic with more interactive methods in the future.

The results illustrate one case of beginning teachers' support needs and cannot be generalised in different contexts or across time. They still provide a direction for examining and addressing key support needs. The validity of this research is partly improved by the understanding that the results are partly congruent with the results of earlier studies (see e.g. Niemi, 2017; Niemi & Nevgi, 2014). In addition, the results obtained through different methods of data collection indicate the centrality of similar support needs, although they can partly be seen as complementing each other. Reliability was improved by using several respondent groups: several similarities were found in the responses between new teachers in different countries and principals. A researcher always plays a central role in conducting research and analysing and interpreting the data (Hall, 2015; Heikkinen et al., 2005). The researcher's influence on interpretations has been acknowledged and reflected on at the various stages of the research process. On the other hand, my position as a researcher and a member of the ONTP project can also be seen as a factor that reinforces the reliability of the research: cooperation has made it possible to discuss the results and contexts of different countries with project partners.

As stated earlier in the study, support needs are not static; they change with educational context and wider societal changes. They are also always context-related, and they do not appear similarly in different contexts. Therefore, support needs should be reviewed regularly, at different times and in different environments. However, pointing out support needs is not enough, but this can lead to better support practices and interesting questions and direction for future research.

This study has identified important perspectives on professional support needs. Future research could focus on investigating how these support needs are supported in initial teacher education and schools. One essential topic would be to examine, how formal induction and mentoring practices succeed in meeting these support needs. In addition, research could focus on examining informal support

measures occurring in a school community. The focus could be on local practices that have been developed in schools and which respond to the support needs of the beginning teachers, perhaps in part unintentionally.

As this study used data collection methods that did not enable interaction between respondents and the researcher, in the future, research could deepen the themes found about support needs by collecting data with interviews and other more interactive methods. In addition, the experiences held by other members in the school community, such as mentors, could be examined. Although previous studies have already investigated the experiences of other school personnel, such as principals (e.g. Chong et al., 2012; Grimsæth et al., 2008; Sunde & Ulvik, 2014), there remains a need for further examination. For this study, we investigated in particular the support needs of beginning teachers among classroom and subject teachers. In future, the topic should also be addressed in other educational contexts, including early childhood education and vocational education, which have thus far received less attention.

In addition, there is a need for longitudinal research on beginning teachers' professional development and the support needed in this process. With the approach utilised here, it was possible to examine the spectrum of support needs but not to allow an investigation of the dynamic nature of their development or change. In this study, data were collected only once from each group of participants. However, as professional development is an ongoing process, future research should apply longitudinal methods (see e.g. Kutsyuruba, Godden, & Bosica, 2019), which so far have largely been unexplored when examining the support needs of new teachers. Previous studies have concentrated on the ways principal leadership affects new teacher turnover (Kim, 2019), the association between person-organisation, person-group fit, and teacher retention (Miller et al., 2020), and the interaction and collaboration between new teachers and the learning communities in which they work (Burn, Mutton, & Hagger, 2010; Eisenschmidt & Oder, 2018; Nyman, 2014). In the future, this previous knowledge could be implemented with more novel approaches, such as intensive longitudinal methods and experience sampling research (see e.g. Hamaker & Wichers, 2017). Finally, support needed for autonomy and independence was found to be an essential support need in this study. In the future, beginning teachers' professional development could be further examined, perhaps by approaching the topic with the concept of agency.

## **7.4 Implications for teacher education and induction**

The study has contributed to understandings of professional learning and development of beginning teachers. It has shown that the need for support or learning are linked to different broad dimensions of professional competence and to the development of professional expertise. By identifying the essential support need

areas, resources can be directed sensibly. Next, implications of the results for initial teacher education and support structures are discussed.

The support needs identified in this study are diverse and complex. Therefore, careful consideration needs to be given to the stage at which these support needs should be addressed, whether in initial teacher education or later when in the workforce. Consideration should also be given to the ways the competence development of new teachers could best be supported. The challenges and support needs of new teachers in their early careers are diverse, and thus cannot be met by just one practice or method (see e.g. Knight, 2002). Organisers of initial teacher education, induction, and in-service training should collaborate to offer meaningful support and learning opportunities for new teachers. Different actors have different knowledge and skills to support teachers in their learning (see e.g. Livingston, 2014). Adequate competence is central to this work, along with the time, space, and other resources allocated to support activities.

One key area of support needs found in this study was related to supporting students' comprehensive individual growth. Initial teacher education organisations should consider how to integrate practising of more comprehensive and individualised pedagogical methods into their study programmes. However, as this competence is highly connected to the practices in the school community, support for the development of this competence should also be provided in the workplace.

Previous studies and educational policy documents have emphasised the importance of early-stage support for a teacher's career. The centrality of this support is justified by its influence in prompting teachers to stay in the profession. Concerns have been raised in several countries and more recently in Finland, about the declining attractiveness of teaching (Heikkinen et al., 2020; Heikonen et al., 2017; Ingersoll & Strong, 2011). These factors have been attributed to early career challenges, among other things. The transition from initial teacher education to work reality can be stressful, and numerous studies have emphasised the importance of providing support for new teachers in schools during this period of time (Anttila, 2019; Eisenschmidt & Oder, 2018; Fantilli & McDougall, 2009; Fresko & Nasser-Abu Alhija, 2015; Geeraerts et al., 2015).

The complexity of the profession can contribute to feelings of insecurity and inadequacy at the beginning of a career. Teacher work involves lots of freedom, responsibility, and decision-making, and assuming the position of 'autonomous professional' at the beginning of a career may feel difficult, especially when work in the classroom is often done alone as a sole teacher. Different induction and mentoring programmes can enhance independence and experiences of autonomy, but other practices and possibilities for collaboration in the school community are also important. For example, an opportunity to work in a team or co-teaching can support the development and a sense of professional competence in several ways. The concept of developing expertise can be seen to share some similarities with

the concept of developing agency (see e.g. Christiansen et al., 2018). With reference to these similarities, it can be assumed that in order to grow and work as an expert, the work environment must provide space and resources, and thus develop the opportunity to work in this particular environment (see e.g. Biesta et al., 2015; Eteläpelto et al., 2014). The work community needs to find ways to support beginning teachers in this process of learning and development (e.g. Eisenschmidt et al., 2013).

The requirements for the teaching profession are wide and diverse. At the beginning of the career, several work tasks and responsibilities may take time and can be felt as overwhelming. In a situation in which work routines have not yet developed, it is essential to have opportunities to develop competences to face uncertainty, promote one's own wellbeing, and set boundaries for own working. The school culture as well as the principal play an important role in promoting these skills. Particularly in situations in which induction activities are not regulated at the national level, principals, who have a significant role in supporting new teachers (Costa et al., 2019; Engvik & Emstad, 2017; Kim, 2019; Miller et al., 2020), must ensure that support is available and that each new teacher is given the opportunity to develop their expertise according their own individual needs. One of the key roles of a principal is to act as the pedagogical leader of the school, and in this role to support the professional development of new teachers and of the entire teaching staff (Lahtero & Kuusilehto-Awale, 2015; Saarivirta & Kumpulainen, 2016; Sergiovanni, 1998). To be able to support school personnel, principals also need support (see Costa et al., 2019). These work tasks and their related support needs should be considered in the education and training of principals and in the resources provided to school organisations.

Teachers are a key resource in the work community and their competence should be promoted by providing opportunities for early career support but also for wider professional development. This requires resources and collaboration between several actors in different parts of the education system.

## 7.5 Concluding remarks

Teachers play an important role in societies and create the future for forthcoming generations. Supporting beginning teachers and their professional development ensures that they continue to want to be teachers and have the competence and expertise to enhance students' learning and develop practices in schools. Providing support is a joint mission of the whole educational system, including teacher education and actors at the local level.

This doctoral dissertation has examined the support needs of beginning teachers in today's complex and rapidly changing working life. It found three key perspectives on support needs that are: *supporting students' comprehensive individual growth*, *working in the school community*, and *developing one's own work*.



These are all part of the wider process of *developing expertise* that can be understood as a holistic continuum of professional development relating to the teaching profession. The support needs must be met in both initial teacher education and life in the workforce to facilitate the beginning of a career and enhance teachers' professional development. Individual and meaningful support measures are needed so that beginning teachers can get a sustainable start in pursuing one of society's most important professions.



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## Appendix. Items of the instrument

1. Using teaching methods
2. Management of classroom interaction
3. Evaluating and grading of students
4. Management of tasks outside the classroom (keep an eye on students during recess, school festivals, trips, morning assemblies etc.)
5. Working in a school community (teaching staff and other school personnel)
6. Administrative tasks (information letters, reports, student transfers to other groups or schools, work diaries)
7. Working with a student welfare group
8. Education of a student's whole personality
9. Development of your own educational philosophy
10. Confronting the changing circumstances of a school
11. Developing school curriculum
12. Differentiating of teaching
13. Providing students' readiness for daily life
14. Preparing students for the future society
15. Intercultural education
16. Promoting the equity of sexes
17. Self-evaluation of your own teaching
18. Cooperation with parents
19. Designing instruction
20. Independent management of teachers' tasks
21. Becoming aware of the ethical basis of the teaching profession
22. Commitment to teaching profession
23. Lifelong professional growth
24. Critical assessment of teacher education
25. Working as a change agent in a society
26. Cooperative action research
27. Revising students' learning environments
28. Post graduate studies in education
29. Researching your own work
30. Evaluating students' learning capacity
31. Mastering the academic contents of curriculum
32. Confronting multiculturalism
33. Readiness for media education
34. Self-regulated learning
35. Critical reflection of your own work
36. Supporting a learner's individual growth
37. Acting in conflict situations (e.g. bullying)
38. Developing applications of modern information technology
39. Cooperation with representatives of work life
40. Cooperation with representative of cultural life

