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Newly Qualified Teachers' Needs of Support for Professional Competences in Four European Countries: Finland, the United Kingdom, Portugal, and Belgium

VILHELMIINA HARJU^{*1} AND HANNELE NIEMI²

☞ The first few years in the teaching profession are usually demanding. Although initial teacher education forms an essential foundation for teachers' work, it cannot fully prepare new teachers for the complexities of working life. This study focuses on investigating the need for professional development support among newly qualified teachers to determine what their professional learning needs are and how these needs differ among teachers from four different countries: Finland, the United Kingdom (England), Portugal and Belgium (Flanders). The research data was collected via a questionnaire from 314 teachers, each with less than five years of teaching experience, and both closed and open-ended questions were included. The quantitative data was analysed using descriptive statistics and factor analysis to identify the latent variables associated with their needs. Answers to the open-ended questions were used to gain deeper insight into the newly qualified teachers' situation. The results indicate that new teachers need support, especially regarding conflict situations and in differentiating their teaching. In addition, when analysing the profiles of eight support-need latent variables, all of the teachers in the different countries viewed supporting students' holistic development as the most important area. Although the results of this study cannot be generalised, they provide an important overview of new teachers' learning needs that should be taken into account when planning and organising support for them.

Keywords: lifelong learning, newly qualified teachers, professional learning needs, teachers' professional competence, teachers' professional development

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Potrebe na novo usposobljenih učiteljev za podporo pri strokovnih kompetencah v štirih evropskih državah – na Finskem, v Veliki Britaniji, na Portugalskem in v Belgiji

VILHELMIINA HARJU IN HANNELE NIEMI

Prvih nekaj let v učiteljskem poklicu je običajno zahtevnih. Čeprav začetno izobraževanje učiteljev nudi ključno osnovo za učiteljsko delo, ne more v celoti na novo usposobljenih učiteljev pripraviti na kompleksnost delovnega procesa. Študija se osredinja na raziskovanje potrebe po podpori strokovnemu razvoju med na novo usposobljenimi učitelji, in sicer z namenom, da se ugotovi, katere so njihove strokovne učne potrebe in kako se te razlikujejo med učitelji štirih držav: Finske, Velike Britanije (Anglije), Portugalske in Belgije (Flandrije). Raziskovalni podatki so bili zbrani z vprašalnikom, na katerega je odgovorilo 314 učiteljev; vsi so imeli manj kot pet let izkušenj z učiteljevanjem; vprašanja so bila zaprtega in odprtega tipa. Kvantitativne podatke smo analizirali s pomočjo deskriptivne statistike in faktorske analize z namenom identificiranja latentnih spremenljivk, povezanih z njihovimi potrebami. Odgovori na vprašanja odprtega tipa so bili uporabljeni za pridobitev poglobljenega vpogleda v položaj na novo usposobljenih učiteljev. Izsledki kažejo, da na novo usposobljeni učitelji potrebujejo podporo, še zlasti v povezavi s konfliktnimi situacijami in pri diferenciaciji njihovega poučevanja. Poleg tega se je pri analizi profilov osmih latentnih spremenljivk glede na podporo – potrebo pokazalo, da vsi učitelji v različnih državah podporo študentovemu celostnemu razvoju vidijo kot najpomembnejše področje. Čeprav izsledkov raziskave ne moremo posplošiti, pa ti nudijo pomemben pregled učnih potreb na novo usposobljenih učiteljev, ki bi naj bile upoštevane pri načrtovanju in organiziranju podpore zanje.

Ključne besede: vseživljenjsko učenje, na novo usposobljeni učitelji, strokovne učne potrebe, strokovne kompetence učiteljev, strokovni razvoj učiteljev

Introduction

Enormous worldwide changes, such as globalisation and technological change, have an influence on education and on the way in which it is implemented (Bautista & Ortega-Ruiz, 2015). As the field of education becomes increasingly multifaceted, so does the work of teachers (see e.g. Darling-Hammond, Wei, Andree, Richardson & Orphanos, 2009; Niemi, 2015a; OECD, 2014). Hence, when newly qualified teachers have their first school teaching position, they face a working life that is both complex and demanding (Jokinen, Morberg, Poom-Valickis & Rohtma, 2008).

This new situation calls for strong professional competencies for teachers. As Darling-Hammond et al. (2009, p. 7) state, 'ensuring student success requires a new kind of teaching'. However, teachers' work is not limited to the classroom: it also includes collaborating with different partners, planning, designing, evaluating one's own teaching, as well as constant studying and learning (see e.g. Niemi, 2012; Niemi & Nevgi, 2014).

Improving students' learning is possible by building school systems that promote teachers' professional development (Darling-Hammond et al., 2009). Teachers need different types of professional development at different times in their careers (Livingston, 2014). Additionally, learning needs differ among new and more experienced teachers (Scheerens, 2010). Although professional development is important during all career phases, it is particularly essential for newly qualified teachers: a huge learning potential exists during the first few years of work (see e.g. Grimsæth, Nordvik & Bergsvik, 2008) but this critical period can also be very stressful as new teachers confront the reality of teaching (Ballantyne, 2007). As it is not possible to acquire all the necessary knowledge and skills from the initial teacher education, much is still learnt at work, especially the procedural 'how to' knowledge that grows through practice (Knight, 2002, p. 230). Thus, supporting newly qualified teachers and giving them time and space for learning at work are important.

In this study, our focus is on the professional learning needs that newly qualified teachers have. We view professional development as a lifelong process that begins when student teachers enter teacher education programs, continues during the first few years of work, and then spans their entire career (see European Commission, 2010). Our aim is to determine what the professional competences that newly qualified teachers feel they need support or guidance with are. In addition, we examine how professional learning needs differ among teachers from four different countries: Finland; the United Kingdom (UK), especially England; Portugal; and Belgium, concentrating on Flanders.

The complexity of the teaching profession today

Global socio-economic and technological developments have an influence on teachers' work and the ways in which it is understood (European Commission/EACEA/Eurydice, 2015). Although the main objective, that is student learning, has stayed the same, the profession and the tasks related to it have become wider and more multifaceted than before.

An essential part of teachers' work is teaching. Teachers are expected to master content and discipline; construct, organise and manage classroom activities; choose the best pedagogical methods; and develop and evaluate their own work (Darling-Hammond, 2006; Darling-Hammond et al., 2009). Classrooms today are increasingly heterogeneous. When planning and carrying out teaching, students' different backgrounds and special needs have to be taken into account. (Livingston, 2014.) Advancing equity and treating every student individually is essential (Ewing, 2001). Thus, teaching as a profession contains a strong ethical dimension (Bullough Jr., 2011; Colnerud, 1997; Shapira-Lishchinsky, 2011).

Over the past few decades, the concepts of knowledge and learning have changed. Nowadays, knowledge is commonly seen as changeable whereas learning is perceived as the active construction of knowledge and as collaborative knowledge creation (see e.g. Lonka et al., 2015; Niemi, 2015a). Consequently, teachers' work is perceived to consist of supporting and facilitating students' active learning rather than transferring information to them. Changes in society as well as in the ways in which knowledge and learning are understood have also generated the need for new objectives for education (see e.g. Ananiadou & Claro, 2009; Commission of the European Communities, 2007). This has led many countries to integrate so-called 21st-century skills into their curricula (Adamson & Darling-Hammond, 2015) to prepare students for the future by teaching them necessary skills such as ICT literacy, cultural awareness, and learning-to-learn skills (see e.g. Binkley et al., 2012). To put these new objectives into action requires, as Saavedra and Opfer (2012) state, that teachers themselves master the skills and integrate them into their teaching.

Increasingly, teachers' responsibilities are not merely restricted to classroom activities. Teachers may, for example, run managerial tasks, be involved in additional decision-making and take part in developing curriculums (Commission of the European Communities, 2007; Livingston, 2012; Niemi, 2015a, b). Collaboration with different partners is also seen as important. Teachers communicate with parents and share relevant information with them, plan and develop work together with colleagues and extend instruction outside classrooms

by collaborating with representatives of working and cultural life (see e.g. Korhonen & Lavonen, 2014; Kukkonen & Lavonen, 2014; Niemi, 2015b).

The current situation also emphasises the teacher's role as an active learner, with learning and professional development activities undertaken throughout their career (e.g. Commission of the European Communities, 2007; Jokinen et al., 2008; Schulle, Dembélé, & Schubert, 2007). Gained work experience, knowledge, and competencies function as individual resources: enhanced professional competence enables teachers to act, make choices, and affect matters at school (see e.g. Eteläpelto, Vähäsantanen, Hökkä & Paloniemi, 2013; Vähäsantanen, 2015). The teacher's role as a researcher has also been emphasised (see e.g. Morales, 2016; Wang & Zhang, 2014; Yayli, 2012). Teachers are expected to try out and evaluate new pedagogical strategies, search for and rely on research-based information and carry out study projects together with their students.

Teachers' professional learning needs at the beginning of their careers

The first years of work are often challenging for newly qualified teacher, with much intense discovery, but this can also cause stress as the focus is often on survival (Grimsæth et al., 2008). Entering working life may cause a so-called praxis shock when new teachers confront the reality of teaching (Ballantyne, 2007; Evans-Andris, Kyle & Carini, 2006). Thus, teachers' early work experiences have a huge impact on beginning teachers' attitudes towards teaching (Ballantyne, 2007), influencing their classroom practice and pedagogical choices (Haggarty & Postlethwaite, 2012), professional identity (Rippon & Martin, 2006), as well as their choices regarding staying in or leaving the profession (Kersaint, Lewis, Potter & Meisels, 2007).

Although the first years are intensive, this does not mean that newly qualified teachers would not be capable or competent at doing their job. As Fransson and Gustafsson (2008, p. 13) state, it is important to perceive new teachers as competent, if not as yet experienced professionals, rather than as 'incompetent persons that need help to manage'. Thus, emphasising professional development is not about incorporating newly qualified teachers into the existing culture but is more about supporting them to develop and take the school culture forwards.

Complex, new situations at work can generate different work-related needs for newly qualified teachers. For example, Evans-Andris and colleagues (2006) found that new teachers needed more support and technical assistance as their new job was seen as overwhelming, emotionally draining and it did

not match with their previously held expectations. Consequently, new teachers required more emotional support from their colleagues or mentors alongside guidance in 'technical tasks' such as classroom discipline and behaviour management, organisation and time management, and issues involving parent concerns and interaction. These results parallel the findings from the OECD's Teaching and Learning International Survey (TALIS), in which new teachers reported the need for more support, especially in classroom management strategies, and improving their professional skills by learning from model teachers (Scheerens, 2010). Furthermore, Ballantyne (2007) highlights the importance of support from colleagues in the first years of work as a teacher.

Sunde and Ulvik (2014) approach new teachers' needs from an entirely different angle: they investigated how school leaders perceive the needs of newly qualified teachers. According to them, the school leaders felt that new teachers need support, especially with information and practical solutions, such as the rules, routines, and duties in the school. Some of the interviewed leaders felt that new teachers should primarily join the existing school culture whereas others highlighted the importance of them finding their own way of teaching and participating in the school community.

As the first years at work have a huge impact on new teachers' wellbeing and working, it is important to find ways to support teachers when they enter working life. To direct the support and guidance in the best way, the specific working tasks or themes that newly qualified teachers feel they especially need help and support with should be examined. As stated at the beginning of the article, the teaching profession includes a wide combination of different skills and knowledge. Mastering them demands long-term development and constant career-long learning. Based on earlier studies and documents (e.g. Commission of the European Communities, 2007; European Commission, 2005; Niemi, 2011, 2012, 2014), which describe teachers' work, we view the teaching profession as containing five dimensions of teachers' professional competences:

1. Designing one's own instruction;
2. Cooperation – teachers working with others;
3. Ethical commitments to the teaching profession;
4. Diversity of students and preparing them for the future; and
5. The teacher's own professional learning.

These dimensions were used as a framework when our study instrument was designed.

Context of the study

As teachers work in diverse settings, the learning needs they have often differ (Livingston, 2014). Newly qualified teachers working in different countries may thus have varied needs due to such differences, for example, in pre-service teacher education, the requirements and expectations set for teachers' work, and individual experiences and needs. All of the countries examined in this study have different systems of initial teacher education. For example, in Finland, all primary and secondary school teachers gain a master's degree when graduating as a teacher, whereas in Belgium (Flanders), most of the teachers gain a bachelor's degree. In addition, in the UK (England), teacher education is commonly organised around school-led training, whereas in the other countries, teacher education is often organised in universities. The four countries also differ in the ways in which formal mentoring for newly qualified teachers is organised. For example, in the UK (England) and Portugal, mentoring is often offered for all new teachers, whereas in Finland, organising mentoring is voluntary for schools. Thus, variations exist between schools and countries regarding how and if mentoring is organised.

A brief summary of the teacher education and mentoring systems in Finland, the UK (England), Portugal and Belgium (Flanders) is shown in Table 1.

Table 1. *A summary of the teacher education and mentoring systems in four countries*

Features	Finland	The United Kingdom (England)	Portugal	Belgium (Flanders)
Teacher qualification	<ul style="list-style-type: none"> • Master's degree. • Takes 5 years. 	<ul style="list-style-type: none"> • National Teaching Standards and qualified teacher status. • Most courses include a post-graduate qualification, which is likely to carry master's-level credits. • Takes 1 to 2 years. 	<ul style="list-style-type: none"> • Master's degree. • Takes 4 to 5 years. 	<ul style="list-style-type: none"> • Bachelor's degree (180 ECTS) for pre-school, primary or first-grade secondary school teaching. • Post-graduate teacher education program (60 ECTS) for teaching in a secondary school.
Pedagogical studies	<ul style="list-style-type: none"> • 60 ECTS* pedagogical studies. 	<ul style="list-style-type: none"> • The Postgraduate Certificate in Education courses include pedagogical studies up to 60 credits at level 7. 	<ul style="list-style-type: none"> • At least 18-21 ECTS pedagogical studies. • Between 30-51 ECTS didactics. 	<ul style="list-style-type: none"> • 30 ECTS pedagogy studies (in post-graduate teacher education programs).

Features	Finland	The United Kingdom (England)	Portugal	Belgium (Flanders)
Organising institution of pedagogical studies	<ul style="list-style-type: none"> Universities. Higher education institutions of vocational teacher education. 	<p>The most common are:</p> <ol style="list-style-type: none"> 1) school-led training, and 2) university-led training. 	<ul style="list-style-type: none"> Universities. Polytechnics (only for primary school teaching degrees). 	<ul style="list-style-type: none"> Universities.
Teaching practice	<ul style="list-style-type: none"> Several phases during the programme, a total of ca. 20 weeks. 	<ul style="list-style-type: none"> In university-lead training, at least 24 weeks. School-based training is a minimum of 24 weeks but often longer. 	<ul style="list-style-type: none"> Between 42–63 ECTS. 	<ul style="list-style-type: none"> 30 ECTS (in post-graduate teacher education programs).
Mentoring for NQTs	<ul style="list-style-type: none"> No formal mentoring system. Schools are responsible for organising the mentoring activities. 	<ul style="list-style-type: none"> Mandatory for all teacher trainees. The school is responsible for organising the mentoring activities. 	<ul style="list-style-type: none"> Mandatory for NQTs** according to legislation. Locally organised according to schools' mentoring programmes. 	<ul style="list-style-type: none"> Voluntary for NQTs. Schools are responsible for organising the mentoring activities.
The mentors	<ul style="list-style-type: none"> Usually a more experienced teacher from the same or different school than a mentee. Can have specific training for mentoring. Rewards or compensations depend on a school. 	<ul style="list-style-type: none"> Each teacher trainee has two tutors: professional and subject tutors. Some schools provide mentors a payment. University-led programme has an additional university-based mentor. 	<ul style="list-style-type: none"> More experienced teacher with specific training for mentoring. Works in the same school as a mentee. Not paid. 	<ul style="list-style-type: none"> Schools frequently ask mentors to follow mentor training. Works in the same school as a mentee. Not paid.
Participation to mentoring	<ul style="list-style-type: none"> High variations among schools if mentoring is organised. 	<ul style="list-style-type: none"> Mentoring is provided for all NQTs. 	<ul style="list-style-type: none"> The aim is that all NQTs are integrated in a mentoring program. Still some variation may occur in the ways mentoring is actually organized. 	<ul style="list-style-type: none"> Mentoring is provided for almost 99% of NQTs.

* European Credit Transfer and Accumulation System credits

**Newly qualified teachers

Objectives

The aim of this study is to examine newly qualified teachers' professional learning needs. In addition, we explore how these needs differ among teachers in four European countries: Finland, the UK (England), Portugal and Belgium (Flanders). As the countries examined in this study have differences in their initial teaching education systems as well as in the ways in which mentoring is organised to support new teachers' work, the aim of this study is not to compare the countries with each other, but rather to identify the most important learning or support needs of new teachers. The aim is also to determine what kinds of need profiles for professional competences exist in each of the four countries. The research questions are:

1. What are newly qualified teachers' most important professional learning needs?
2. How do the need profiles of professional competences differ among teachers from Finland, the UK (England), Portugal and Belgium (Flanders)?

Data collection and participants

The study is part of the European-funded Erasmus+ Key Action 2 project called the 'Outstanding Newly Qualified Teacher Program' (ONTP) for 2015–2017. The aim of the project is to find good practices to support newly qualified teachers, school leaders, and mentors in their work. The partners of this project come from Belgium, the UK, Portugal and Finland.

The data for the study was collected with an electronic questionnaire sent to newly qualified teachers in autumn 2015 and spring 2016. In Finland, the questionnaire was sent to newly qualified teachers who had previously participated in training for new teachers organised by the Trade Union of Education in Finland and through 200 principals in comprehensive and general upper secondary schools in different geographical areas. The principals were asked to forward the questionnaire to the potential new teachers in their schools. In all, there were 145 respondents from Finland. In the UK, the questionnaire was sent to 60 newly qualified teachers studying in a teacher training programme organised by the Teaching School Alliance in the North East of England. In all, 32 teachers responded. In Portugal, the questionnaire was sent to school principals in a region called Lisbon and Tagus Valley. Like in Finland, the principals were asked to forward the questionnaire to the new teachers in their schools. The number of respondents in Portugal was 62. In Belgium (Flanders), 75 new teachers responded to the questionnaire.

Instruments

The analysis methods used in this study were mainly quantitative: descriptive statistics, correlations and factor analysis with principal component analysis to identify the latent dimensions of professional competences. The qualitative data was used to deepen the understanding of the quantitative findings.

The instrument was used in earlier studies, originally in surveys of Finnish student teachers (Niemi, 2012, 2014) and also in comparative studies of Finnish and Turkish teacher education (Niemi, Nevgi & Aksit, 2016). In the earlier studies, the student teachers were asked: 'How well has the teacher training/teacher education you have thus far participated in made you ready for the teaching profession.' The instrument consisted of 40 questions about teachers' professional competences covering the five dimensions mentioned previously. In the survey for new teachers, the instruction was modified as follows: 'In the teaching profession, you face many kinds of tasks. Even though teachers have graduated from teacher training programs, they still need support, counselling, mentoring or further training for their own professional development. How do you see your own situation? I need support or mentoring in the following tasks.' New teachers responded using a 5-point Likert-scale: *Not at all or very little* (1), *A little* (2), *Somewhat* (3), *Much* (4) and *Very much* (5).

The instrument also consisted of teachers' background information and six open-ended questions with the following instruction: '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. The teacher's pedagogical work and content knowledge;
2. Facing student diversity and multiculturalism in schools;
3. Cooperation in a school community;
4. Cooperation with different partners and stakeholders outside the school;
5. Ethical questions and one's own educational view or philosophy; and
6. One's own professional development as a teacher.

The data collected from the open-ended questions was mainly used to support the quantitative data. Thus, the quotes presented in the results section are aimed at giving examples of the learning needs described by newly qualified teachers.

Analysis

The data from each country was analysed separately using descriptive statistics. Based on mean values, the needs were set in descending order to identify the most important ones. This was considered more relevant than directly comparing mean values between countries. In different cultural contexts, people have cultural patterns when using scales, for example, using extreme or moderate values.

After identifying the ten most important needs at the item level, the aim was to reveal latent variables in the data. In the earlier analysis of Finnish student teacher measurements in terms of the structure of the instrument, the five dimensions consisted of 40 items representing the following five dimensions of professional competences (Niemi, 2012, 2014): (1) *Designing one's own instruction*; (2) *Cooperation – teachers working with others*; (3) *Ethical commitments in the teaching profession*; (4) *Diversity of pupils and preparing them for the future*; and (5) *The teacher's own professional learning and growth*.

When analysing the combined Finnish and Turkish data, we concluded that six dimensions should be extracted as the teacher's professional learning was divided into *Readiness for teacher professional development* and *Developing teaching based on one's own educational philosophy* (Niemi et al., 2016).

In the new teacher data, limitations existed for further analysis due to the number of participants in countries other than Finland. Only the Finnish data gave a statistical basis for the factor analysis. As we had previous knowledge about the structure, the Finnish data was analysed using confirmatory analysis by extracting five or six dimensions. It did not provide a clear structure; therefore, a different number of dimensions was allowed. Using principal component methods and oblimin rotations, we accepted eight dimensions based on eigenvalues and the relevance in terms of interpreting the content of the dimensions. The eight components could explain 67.25% of the variance in the items (Table 2). The solution mainly gave the same features as the previous five- and six-dimension models, but some teachers' tasks had slightly more specific content. This model was tested on the other country data by counting Cronbach alpha scores separately for all data sets.

Table 2. *The eigenvalues and rotated sums of squared loading in the eight-component solution*

Component		Initial Eigenvalues		Rotation sums of squared loadings
1	Total	% of Variance	Cumulative %	Total
2	2.479	6.199	44.068	4.305
3	2.046	5.116	49.184	5.627
4	1.765	4.413	53.597	7.827
5	1.625	4.063	57.660	6.488
6	1.521	3.803	61.463	6.602
7	1.309	3.273	64.736	4.156
8	1.022	2.556	67.292	5.297

The accepted model for the component was highly relevant for understanding teachers' competences. The dimension was named based on the strongest items in the component:

1. *Students' holistic support*
2. *Teacher as a researcher*
3. *Work outside the classroom*
4. *Teacher identity*
5. *New learning environments*
6. *Classroom pedagogy*
7. *Interaction with students and parents*
8. *Work in society.*

When comparing this with the earlier five-dimension structure for student teachers, we can see that there are similarities: *Classroom pedagogy* is very much the same as the earlier *Designing one's own instruction* but in the new teachers' data, the teacher's own philosophy is incorporated. The other professional competences were also divided into more dimensions for the new teachers. For example, *Diversity of pupils and preparing them for the future* now contains two latent variables: *Students' holistic support* and *New learning environments*. The analysis indicated that new teachers have more experience about teachers' work, and their assessment was more specific and accurate than that of the student teachers.

The model incorporating the eight latent variables was used as the basis for constructing summative variables for each dataset and analysing reliability. The reliability values were very high for each country at mostly .80 or higher.

The only exception, *Interaction with students and parents* in the Finnish data, had an alpha score of only .56. For Belgium (Flanders), two variables (curriculum development and teacher's post-graduate studies) were deleted before determining the reliability scores and forming the summative variable as there were too many missing values. According to Belgian ONTP experts, these aspects were not relevant as teachers do not have these options or obligations in Belgium (Flanders). This causes a minor limitation, but because countries are not compared directly with each other, the Belgian profiles can be accepted based on the high alpha scores for the latent variables. All of the countries latent variables and their Cronbach alpha scores are shown in Table 3.

Table 3. *Reliability scores of the eight-component solution for teachers' professional needs*

Dimensions of teachers' professional competences among NQTs	FI	UK	PO	BE
1. Students' holistic support	.89	.91	.91	.84
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. mobbing)				
2. Teacher as a researcher	.77	.84	.79	.75
25. Working as a change agent in society				
26. Cooperative action research				
28. Post-graduate studies in education				
29. Researching your own work				
3. Work outside the classroom	.77	.74	.82	.71
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				
4. Teacher identity	.85	.89	.93	.82
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				

Dimensions of teachers’ professional competences among NQTs	FI	UK	PO	BE
5. New learning environments	.80	.88	.83	.84
27. Revising students’ learning environments				
32. Confronting multiculturalism				
33. Readiness for media education				
38. Developing applications of modern information technology				
34. Self-regulated learning				
6. Classroom pedagogy	.82	.85	.90	.72
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				
7. Interaction with students and parents	.56	.79	.73	.71
2. Management of classroom interaction				
16. Promoting the equity of sexes				
18. Cooperation with parents				
8. Work in society	.73	.84	.76	.63
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				

Results

The first research question asked what the most important professional learning needs of newly qualified teachers are. Table 4 shows the ten most important needs.

Table 4. *The ten most important professional learning needs of newly qualified teachers in four countries*

	Finland	The United Kingdom (England)	Portugal	Belgium (Flanders)
1	37. Acting in conflict situations (e.g. mobbing) M = 3.59 SD = 1.017	37. Acting in conflict situations (e.g. mobbing) M = 2.94 SD = 1.315	37. Acting in conflict situations (e.g. mobbing) M = 3.36 SD = 1.030	12. Differentiating teaching M = 3.64 SD = 1.135
2	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
3	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. mobbing) M = 3.19 SD = 1.194

	Finland	The United Kingdom (England)	Portugal	Belgium (Flanders)
4	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
5	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
6	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
7	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
8	6. Administrative tasks (information letters, reports, student transfers to other groups or schools, work diaries) 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
9	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
10	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

The results show that the new teachers required support or mentoring, especially for conflict situations. This was the most urgent need in Finland, the UK (England) and Portugal. In Belgium (Flanders), it was third. Differentiating one's teaching and modifying instruction to meet the needs of individual students was seen as challenging in all four countries. It was the second highest need in Finland and Portugal, first in Belgium (Flanders) and fourth in the UK (England). These professional learning needs were also adduced in open-ended questions. As one elementary teacher from Belgium (Flanders) describes: '[Y]ou learn how to handle individual situations [in initial teacher training], but not how to handle realistic situations in a classroom.'

A history/social sciences teacher from Finland agrees:

Managing different difficult situations at work has turned out to be surprisingly challenging. We weren't really prepared for these in the teacher

education. [...] I haven't received any guidance on how to work with students whose language skills in Finnish are poor. It has been a frustrating experience to try out different self-developed ways to help a student with poor language skills in Finnish in a classroom when other students need lots of support as well.

In addition to handling conflict situations and differentiating teaching, many of the other top-ten needs were related to the students' learning capacity and future. In Finland, newly qualified teachers stated that they need support in working with student welfare groups, which are multi-professional groups that help students in difficulties. In Portugal, the challenging competence areas included preparing students for future society, education of a student's whole personality and preparing students for readiness for daily life. One interesting difference between Belgium (Flanders) and the other countries was that Belgian teachers' needs were mainly related to classroom pedagogy, such as support in instructional design, managing classroom interaction, readiness for media education and using teaching methods. In Finland, the UK (England) and Portugal, new teachers were more focused on confronting the changing circumstances of a school, developing the school curriculum, revising students' learning environments and cooperative action research.

In the top-ten list, many countries referenced information and communication technology or new learning environments. A new teacher from Finland commented:

Teacher education [was] quite ok, but seldom corresponds to praxis. The big problem, at this moment, is that digital methods are put to use concentrating on devices, not on pedagogy or even content. The result is a mess. Expensive devices are bought, but nobody tells us what to really do with them.

In many open-ended descriptions, the main message was that the pre-service teacher training was good but did not fit the real work in schools. ICT is introduced primarily as a tool that is not connected with pedagogy or even content.

The second research question focused on what kinds of need profiles for professional competences are required from teachers from four countries when all the items in the questionnaire are included. The eight need components were analysed with descriptive statistics to determine the means and standard deviations (Table 5). The difference between the profiles of the support needs can be seen in Figure 1.

Table 5. *New teachers' support needs as combined variables for the four countries*

Needs of support for professional competences	FI M (SD)	UK M (SD)	PO M (SD)	BE 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 a 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)

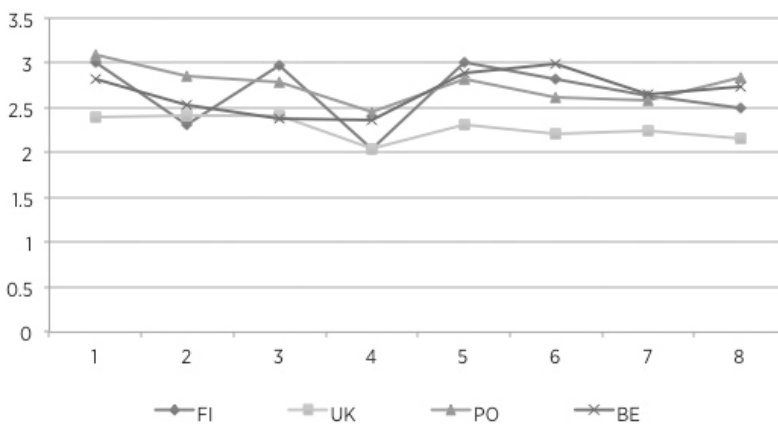


Figure 1. Profiles of newly qualified teachers for the eight components of support: 1. *Students' holistic support*, 2. *Teacher as a researcher*, 3. *Work outside the classroom*, 4. *Teacher identity*, 5. *New learning environments*, 6. *Classroom pedagogy*, 7. *Interaction with students and parents*, and 8. *Work in society*.

We can see that the highest needs are related to the students' holistic support. The latent variable consists of the following items: *Education of a student's*

whole personality, Development of your own educational philosophy, Differentiating teaching, Preparing students for readiness for daily life, Preparing students for future society, Supporting a learner's individual growth, and Acting in conflict situations (e.g. mobbing). This value-bound competence also incorporates the teachers' philosophical component. Teacher as a researcher was high in the UK, and student support and research capacity was also on the top of needs in Portugal. Teacher as a researcher was among the lowest needs in both Finland and Belgium (Flanders). In the Finnish data, working outside the classroom was a high priority, as it was in the UK (England). Only in Portugal did teachers' work in society rise to the top of the country-based profile. We can summarise the findings of the need profiles as follows: student support is the strongest need in all four countries, but there are also differences, which are probably related to pre-service teacher education as well as the tasks for which teachers are responsible. If teacher education provided good competences, new teachers' needs might not be very high. Alternatively, if teachers are changing and new demands are emerging, more support is also needed among new teachers.

Discussion

In this study, we have examined the professional learning needs and support for those needs among newly qualified teachers in Finland, the UK (England), Portugal and Belgium (Flanders). As the analysis revealed, there are several similarities among the learning needs mentioned by teachers from different countries. One relates to acting in conflict situations, for example, when mobbing occurs, which is a surprising yet typical situation for teachers. However, conflict situations are often unique, and student teachers can never be completely prepared through teacher education programs. Knight (2002) emphasises how it is not possible to acquire all the necessary knowledge and skills from the initial teacher education. Many aspects of competence can only be developed through participating in activities in the working community. Thus, support at a school level is needed to foster new teachers' confidence to act in the complex situations encountered in schools.

The analysis also showed that differentiating their teaching was a challenging competence. Although teacher education offers basic, theoretical knowledge about special and multicultural education, managing classroom activities may still be hard. In heterogeneous classes, multifaceted knowledge, and skills, as well as cooperation with colleagues, are often needed to support every student's learning effectively.

Earlier studies (e.g. Ballantyne, 2007) have highlighted the importance of

collegial support during the praxis shock of the teacher's early career, and Sunde and Ulvik (2014) noted the need for support especially with information and practical solutions, such as the rules and routines of the school. Evans-Andris et al. (2006) found that new teachers' needs included overall support and technical assistance for example with classroom discipline and behaviour management. In our study, the most important needs are not related to technical or practical issues. Support is needed more for problem solving (e.g. in conflict situations) and to help students learn by making learning relevant through differentiating teaching. Our findings reveal that new teachers have needs of support and learning for revising learning environments and working as change agents in society that are far beyond mere technical support and information delivery.

The analysis of different countries' need profiles also revealed that the new teachers felt they needed more support in terms of supporting students holistically. This implies that the new teachers' main focus is on students. As Moir and Gless (2001) state, the essential aim in supporting new teachers should be to foster their abilities to offer all students in the classroom the experience of high-quality teaching and to help students to learn successfully.

Teachers' work is not only limited to the classroom. Nowadays, it is also increasingly expanded outside the class and school (see e.g. Korhonen & Lavonen, 2014; Kukkonen & Lavonen, 2014). The results of this study indicated that newly qualified teachers felt they needed support either for working in society or working outside the classroom. As influential agents in society, teachers need to learn how to collaborate with different partners such as parents, colleagues and other societal partners (Niemi, 2012, 2014).

The analysis of different countries' need profiles also revealed that the teachers in the UK (England) and Portugal felt they needed more support in applying research activities in their work as teachers are active explorers and developers of their work (see e.g. Morales, 2016). The new teachers in Finland did not report this need, which may result from the fact that in that country initial teacher education includes several courses on research studies and thus already prepares teachers for research work during their pre-service period. Instead, new teachers in Finland and Belgium (Flanders) felt they needed more support in working in and organising new learning environments. This may reflect the changes schools are facing through increasing digitalisation.

Newly qualified teachers' professional learning needs can include a variety of competences. Here, the needs teachers' felt were important included broad competences, such as supporting students' comprehensive growth, but also more specific ones, such as acting in situations involving mobbing. As newly qualified teachers are not a homogenous group (see e.g. Livingston, 2014), it

is important to explore the particular learning needs of each new teacher when planning mentoring activities for them.

Limitations and future research

This study has some limitations. First, the data analysis was based mainly on average levels. Thus, the variations between different respondents were not taken into account and hence, learning needs could vary considerably between different respondents.

Second, as surveys employing the data-collection method force respondents to choose between set options, the respondents may have to select an option that does not fully describe their situation. In the Finnish questionnaire, unlike the questionnaires in the other three countries, teachers were forced to answer all the questions and thus could not leave any questions blank. Thus, they had to choose an option even though it may not have truly described their experience.

Third, as the study was implemented in four different countries, there may be some cultural or individual differences in the way certain questions were understood. As clarifying questions could not be asked, there is no certainty regarding the respondents understanding the questions in a similar way.

Fourth, the quantity of data varied among different countries. The sample size was quite low, and thus, no generalisation can be made. Hence, the present study offers an overview of the professional learning needs of newly qualified teachers in general rather than providing a representative need profile for each country. More research should be done to gain a more representative picture of new teachers' learning needs. In addition, different methods, such as interviews and observations, should be used to gain a more comprehensive view of the learning needs of newly qualified teachers.

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References

- Adamson, F., & Darling-Hammond, L. (2015). Policy pathways for twenty-first century skills. In P. Griffin, & E. Care (Eds.), *Assessment and teaching of 21st century skills: Methods and approach* (pp. 293-310). Dordrecht: Springer.
- Ananiadou, K., & Claro, M. (2009). *21st century skills and competences for new millennium learners in OECD countries* (OECD Education Working Paper No. 41). Paris: OECD Publishing.
- Ballantyne, J. (2007). Documenting praxis shock in early-career Australian music teachers: The impact of pre-service teacher education. *International Journal of Music Education*, 25(3), 181-191.
- Bautista, A., & Ortega-Ruiz, R. (2015). Teacher professional development: International perspectives and approaches. *Psychology, Society, & Education*, 7(3), 240-251.
- Binkley, M., Erstad, O., Herman, J., Raizen, S., Ripley, M., Miller-Ricci, M., & Rumble, M. (2012). Defining twenty-first century skills. In P. Griffin, B. McGaw, & E. Care (Eds.), *Assessment and teaching of 21st century skills* (pp. 17-66). Dordrecht: Springer.
- Bullough Jr., R. V. (2011). Ethical and moral matters in teaching and teacher education. *Teaching and Teacher Education*, 27(1), 21-28.
- Colnerud, G. (1997). Ethical conflicts in teaching. *Teaching and Teacher Education*, 13(6), 627-635.
- Commission of the European Communities. (2007). *Improving the quality of teacher education*. (Communication from the Commission to the Council and the European Parliament 2007/C 300/07 of 15.11.07.) Brussels. Retrieved 08.08.2016 from http://www.atee1.org/uploads/EUpolicies/improving_the_quality_of_teacher_education_aug2007.pdf.
- Darling-Hammond, L. (2006). Constructing 21st-century teacher education. *Journal of Teacher Education*, 57(3), 300-314.
- Darling-Hammond, L., Wei, R. C., Andree, A., Richardson, N., & Orphanos, S. (2009). *Professional learning in the learning profession: A status report on teacher development in the United States and abroad*. Stanford, CA: National Staff Development Council and the School Redesign Network at Stanford University.
- Eteläpelto, A., Vähäsantanen, K., Hökkä, P., & Paloniemi, S. (2013). What is agency? Conceptualizing professional agency at work. *Educational Research Review*, 10, 45-65.
- European Commission. (2005). *Common European principles for teacher competences and qualifications*. Brussels. Retrieved 08.08.2016 from http://www.atee1.org/uploads/EUpolicies/common_eur_principles_en.pdf.
- European Commission. (2010). *Developing coherent and system-wide induction programmes for beginning teachers: A handbook for policymakers*. Brussels. Retrieved 08.08.2016 from http://ec.europa.eu/education/policy/school/doc/handbook0410_en.pdf.
- European Commission/EACEA/Eurydice. (2015). *The teaching profession in Europe: Practices, perceptions, and policies* (Eurydice Report). Luxembourg: Publications Office of the European Union.
- Evans-Andris, M., Kyle, D. W., & Carini R. M. (2006). Is mentoring enough? An examination of the mentoring relationship in the pilot two-year Kentucky Teacher Internship Program. *The New*

Educator, 2(4), 289-309.

Ewing, N. J. (2001). Teacher education: Ethics, power, and privilege. *Teacher Education and Special Education*, 24(1), 13-24.

Fransson, G., & Gustafsson, C. (2008). Becoming a teacher: An introduction to the theme and the book. In G. Fransson, & C. Gustafsson (Eds.), *Newly qualified teachers in Northern Europe: Comparative perspectives on promoting professional development* (pp. 11-26). Sweden: University of Gävle.

Grimsæth, G., Nordvik, G., & Bergsvik, E. (2008). The newly qualified teacher: A leader and a professional? A Norwegian study. *Journal of In-service Education*, 34(2), 219-236.

Haggarty, L., & Postlethwaite, K. (2012). An exploration of changes in thinking in the transition from student teacher to newly qualified teacher. *Research Papers in Education*, 27(2), 241-262.

Jokinen, H., Morberg, Å., Poom-Valickis, K., & Rohtma, V. (2008). Mentoring of newly qualified teachers in Estonia, Finland, and Sweden. In G. Fransson, & C. Gustafsson (Eds.), *Newly qualified teachers in Northern Europe: Comparative perspectives on promoting professional development* (pp. 76-106). Gävle / Sweden: University of Gävle.

Kersaint, G., Lewis, J., Potter, R., & Meisels, G. (2007). Why teachers leave: Factors that influence retention and resignation. *Teaching and Teacher Education*, 23(6), 775-794.

Knight, P. (2002). A systemic approach to professional development: Learning as practice. *Teaching and Teacher Education*, 18(3), 229-241.

Korhonen, T., & Lavonen, J. (2014). Crossing school-family boundaries through the use of technology. In H. Niemi, J. Multisilta, & E. Löfström (Eds.), *Crossing boundaries for learning: Through technology and human efforts* (pp. 37-66). Helsinki: CICERO Learning Network, University of Helsinki.

Kukkonen, M., & Lavonen, J. (2014). Crossing classroom boundaries through the use of collaboration supporting ICT: A Case study on school-kindergarten-library-seniors' home partnership. In H. Niemi, J. Multisilta, & E. Löfström (Eds.), *Crossing boundaries for learning: Through technology and human efforts* (pp. 67-89). Helsinki: CICERO Learning Network, University of Helsinki.

Livingston, K. (2012). Approaches to professional development of teachers in Scotland: Pedagogical innovation or financial necessity? *Educational Research*, 54(2), 161-172.

Livingston, K. (2014). Teacher educators: Hidden professionals? *European Journal of Education*, 49(2), 181-232.

Lonka, K., Hietajärvi, L., Moisala, M., Tuominen-Soini, H., Vaara, L. J., Hakkarainen, K., & Salmela-Aro, K. (2015). Working document I. In European Parliament (Ed.), *Innovative schools: Teaching & learning in the digital era – Workshop documentation* (pp. 5-46). Brussels: European Parliament.

Moir, E., & Gless, J. (2001). Quality induction: An investment in teachers. *Teacher Education Quarterly*, 28(1), 109-114.

Morales, M. P. E. (2016). Participatory action research (PAR) cum action research (AR) in teacher professional development: A literature review. *International Journal of Research in Education and Science*, 2(1), 156-165.

- Niemi, H. (2011). Educating student teachers to become high quality professionals – A Finnish case. *CEPS Journal*, 1(1), 43-66.
- Niemi, H. (2012). Relationships of teachers' professional competences, active learning and research studies in teacher education in Finland. *Reflecting Education*, 8(2), 23-44.
- Niemi, H. (2014). Teachers as active contributors in quality of education: A special reference to the Finnish context. In D. Hung, K.Y.T. Lim, & S.-S. Lee (Eds.), *Adaptivity as a transformative disposition for learning in the 21st century* (pp. 179-199). Singapore: Springer.
- Niemi, H. (2015a). Teacher effectiveness in the European context with a special reference to Finland. In O.-S. Tan, & W.-C. Liu (Eds.), *Teacher effectiveness: Capacity building in a complex learning era* (pp. 51-78). Singapore: Cengage Learning.
- Niemi, H. (2015b). Teacher professional development in Finland: Towards a more holistic approach. *Psychology, Society, & Education*, 7(3), 279-294.
- Niemi, H., & Nevgi, A. (2014). Research studies and active learning promoting professional competences in Finnish teacher education. *Teaching and Teacher Education*, 43, 131-142.
- Niemi, H., Nevgi, A., & Aksit, F. (2016). Active learning promoting student teachers' professional competences in Finland and Turkey. *European Journal of Teacher Education*. Retrieved 04.08. 2016 from <http://www.tandfonline.com/doi/abs/10.1080/02619768.2016.1212835>.
- OECD (2014). *TALIS 2013 results: An international perspective on teaching and learning*. OECD Publishing. Retrieved 20.06.2016 from <http://dx.doi.org/10.1787/9789264196261-en>.
- Rippon, J., & Martin, M. (2006). Call me teacher: The quest of new teachers. *Teachers and Teaching: Theory and Practice*, 12(3), 305-324.
- Saaavedra, A. R., & Opfer, V. D. (2012). Learning 21st-century skills requires 21st-century teaching. *Phi Delta Kappan*, 94(2), 8-13.
- Scheerens, J. (Ed.) (2010). *Teachers' professional development. Europe in international comparison. An analysis of teachers' professional development based on the OECD's Teaching and Learning International Survey (TALIS)*. Luxembourg: Office for Official Publications of the European Union.
- Schwille, J., Dembélé, M., & Schubert, J. (2007). *Global perspectives on teacher learning: Improving policy and practice*. Paris: UNESCO, International Institute for Educational Planning.
- Shapira-Lishchinsky, O. (2011). Teachers' critical incidents: Ethical dilemmas in teaching practice. *Teaching and Teacher Education*, 27(3), 648-656.
- Sunde, E., & Ulvik, M. (2014). School leaders' views on mentoring and newly qualified teachers' needs. *Education Inquiry*, 5(2), 285-299.
- Vähäsantanen, K. (2015). Professional agency in the stream of change: Understanding educational change and teachers' professional identities. *Teaching and Teacher Education*, 47, 1-12.
- Wang, Q., & Zhang, H. (2014). Promoting teacher autonomy through university-school collaborative action research. *Language Teaching Research*, 18(2), 222-241.
- Yayli, D. (2012). A hands-on experience of English language teachers as researchers. *Teacher Development*, 16(2), 255-271.

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