

## 1. Introduction<sup>1</sup>

Beliefs about knowledge and research in teacher education have been described as “clashing epistemologies” among aspiring teachers, practicing teachers and professors (Joram, 2007). A division between practical and academic knowledge and skills seems to exist in teaching: teachers in schools argue that practical skills are the most important for teachers to acquire, and teacher educators are criticized for emphasizing esoteric, abstract knowledge that is not relevant to the task of teaching. Whether teacher educators and teachers should have similar values and attitudes is an issue of debate. In one classic view of the relationship between professional education and work (e.g., Parsons, 1978; Parsons & Platt, 1973), the role of education is to produce fully-fledged professionals who have appropriate skills and qualifications and are ready to work. This relationship demands a close match between education and workplaces in the understanding of the kinds of competencies and skills that are needed by professionals. Teacher educators must, it is assumed, have expectations about what working as a teacher involves similar to those held by teachers practicing in schools.

It could be argued, however, that the role of teacher education is not simply to produce new teachers with the skills and competencies that are in demand in schools, and that the classic division between theorists/researchers/educators and practitioners is not as clear cut as often suggested. The idea that teacher education *can* provide fully-fledged professionals, ready to start work at the same performance level and intensity as experienced teachers, has been challenged by numerous studies and contributions within research approaches examining learning in the professions (e.g. Smeby & Vågan, 2008; Eraut, 1994). Furthermore, approaches to professional education that combine academic study with professional practice have

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<sup>1</sup> Abbreviations used in the paper: ANOVA = Analysis of Variance, Obs = number of observations, SD = standard deviation, OLS = ordinary least squares, R&D = research and development, TeData 1 = Teacher Educator Data 1, TeData 2 = Teacher Educator Data 2.

been argued to be the best way to integrate theoretical skills, practical skills and knowledge (Sullivan, 2005; Sullivan & Rosin, 2008).

In this article, the degree of difference between teacher educators' and practicing teachers' views are investigated empirically, using a Norwegian survey sample of teacher educators and teachers. Comparing group measures (mean scores), individual relations (correlations) and multivariate relations makes it possible to address differences that exist between and within the teaching profession and, thus, shed light on any differences in valuation of different questions among the various arenas in teacher qualification; in this way the article aims to establish whether different groups within the teaching profession have a common understanding of the teacher role.

The empirical analyses are framed within a discussion about teacher qualification, and the empirical comparison provides a starting point for a continued discussion of the goals for teacher qualification, particularly regarding the degree of consensus needed, and on the types of competencies and values teacher education should focus on.

Furthermore, references are made to ongoing international changes in the goals of professional education, specifically those linked to the implementation of qualification frameworks. The introduction of National Qualifications Frameworks, focusing on learning outcomes in education, has been described as a global phenomenon (Young, 2002), emphasizing the almost unquestionable ideals of transparency and employability. However, less attention has been given to how the idea of a single framework transforms education, and how the intrinsic logic of the frameworks might change professional education (Young, 2003), although recent discussions have tried to present balanced arguments about the negative and the positive aspects of Qualifications Frameworks (e.g. Souto-Otero, 2012). In Europe, the development of Qualification Frameworks is part of the European Union's Bologna process (see Bologna working group on qualifications framework, 2005). The introduction of this joint European framework is typically justified with reference to the increased compatibility, coherence, measurability and transparency it could introduce across Europe, although it can also be argued to mark a much more fundamental shift in the goals and purpose of higher education (Karseth, 2006; 2008). In section 1.1., the

diverse knowledge base for teaching is discussed. Section 1.2 discusses how a goal for teacher education might be chosen, against the background of section 1.1. In section 1.3 an argument is set to challenge the precision and coherence of the idea of a single teaching profession, as teaching involves differences between and within many different groups. These three sections lead to several hypotheses regarding differences between different groups of teachers, and in the rest of the article these are presented, empirically examined and discussed.

### ***1.1 The practical, scientific and normative demands of teaching***

The knowledge base for teaching has been described by many as involving a tension between practical knowledge and academic knowledge (e.g., Joram, 2007).

However, as is well known, good teaching does not rest solely on academic or practical knowledge. Labaree (2008) argued that “teaching is an enormously difficult job that looks easy” (p. 298). Successful teachers must acquire content knowledge, general pedagogical knowledge, curriculum knowledge, pedagogical content knowledge, knowledge of learners and their characteristics and knowledge of educational contexts and of pedagogical ends, purposes and values (Ben-Peretz, 2011; Shulman, 1987).

Teaching is by no means a neutral enterprise; as in all professions, there is a strong normative aspect to professional practice, and teachers have to perform many normative, discretionary acts in their work (Berlak & Berlak, 1981). Teaching professionals are given a mandate by society to provide education to its citizens, and teachers’ task is to carry out this mandate in the best way possible. Hence, teachers have to make judgments in many situations, constantly thinking on their feet and having to make quick, practical decisions while considering values and dilemmas. Some have described decision making as *the* basic teaching skill (Shavelson, 1973) because classroom work is multidimensional, simultaneous, immediate, unpredictable, public and cumulative (Doyle, 1986). This approach to decision making refers to the immediate decisions that teachers make during class. In early teaching research, these decisions were investigated in the classroom, via meticulous recording of teachers’ decisions as they happened. As the kinds of ethical dilemmas involved in teachers’ work are often broad and long-lasting, and at their

root concern the role of education in society, these dilemmas and decisions can also be addressed with other research methods.

The approach taken in this paper is to ask teachers not only about the importance of practical and academic knowledge for teaching, but also about their attitude towards one of the important dilemmas in schooling, the inclusion or exclusion of students with special needs in standard education (mainstreaming vs. segregation) (Artiles, 1998; Bakke, 2007; Dyson, 2001). Two specific examples of such dilemmas are decisions about which students have the right to participate in ordinary classes and beliefs about how decisions to include certain students affect teaching the overall group. One could argue that there is no right or wrong answer in dilemmas of this kind. Teachers may have different interpretations of the role the school should have (the mandate of schooling) and how this role should be implemented in the classroom (Berlak & Berlak, 1981). Inclusion is a value-laden question and “implies a restructuring of mainstream schooling that every school can accommodate every child irrespective of disability” (Avramidis & Norwich, 2002, p. 131). A drive toward inclusion has occurred in Western countries in the past few decades (Avramidis & Norwich, p. 130), and inclusion has been discussed as a question of social justice and fairness (Brighouse, 2000). It is therefore a relevant concern for all groups involved in the qualification of teachers, and a good example of an issue that can illustrate the reasoning of different groups of teachers. Such dilemmas are believed to be affected by professional experience and career (Avramidis, Bayliss, & Burden, 2000; Avramidis & Norwich, 2002). Attitudes toward inclusion thus make an interesting and appropriate case for comparing the ethical reflections among teacher educators, novice teachers and experienced teachers. If the aim of professional education is to provide future teachers with the ability to perform practical reasoning and the ability to reflect upon their own role as professionals, an emphasis must be placed on the ethical consequences of their work as professionals, in this case their role in enacting public values about the inclusion of special needs students.

By examining how different groups handle this normative dilemma, and how this relates to their broader views on practical and academic knowledge, it is possible to shed new light on the recurring discussion about the importance of different kinds of knowledge and reasoning for teaching. In the next section, the relevance of such

issues around the role and organization of teacher education is discussed in light of recent European policy developments.

### ***1.2 The organization and role of teacher education***

The diverse demands placed on teachers' knowledge and abilities make it challenging to prioritize what should be emphasized in relatively short educational programs. As noted above, teaching is not only about the application of academic knowledge and the development of practical skills, but is a normative enterprise (see e.g., Travers, 1988). The normative aspects of teaching refer to both the purposes of schooling as well as to the practice of teaching and the interaction between a teacher and student. This long-running philosophical discussion also has a practical dimension, given that it is reflected in the actions of teachers and their reasons for acting. As more attention has been paid to the dilemmas and demands of teaching, and how these relate to teacher competence, new models and ideas for teacher education have emerged (Korthagen & Kessels, 1999, p. 4).

Research on teachers and teaching has always focused on the relationship between theory and practice, between the academic knowledge base and practical work. However, much less attention has been given to questions concerning the role of teacher education in preparing individuals for the normative and ethical dilemmas they will face. It has been argued that education should emphasize practical reasoning, and as part of the formation of practical reasoning in students, a "new agenda for professional education" is needed (Sullivan & Rosin, 2008), where ethical reflection is given a much more prominent place. Practical reasoning as an educational value is about integrating the academic, practical and ethical thinking necessary for competent professional practice. The intention is that those in teacher education programs should move beyond the understanding of professional practice as the application of abstract concepts in particular cases, by learning to "move back and forth between the realm of general theory typical of their fields and the demand to make their learning and intentions concrete in particular judgments and decisions" and by endeavoring to "reflect on their learning" (Sullivan & Rosin, 2008. p. 19); the goal being to find a balance between the epistemic and moral purposes of teacher education (Sockett, 2008).

Sullivan (2005, pp. 207–216) has argued that the theoretical, practical and ethical reflection skills necessary for teaching work are taught via three different apprenticeships: the intellectual or cognitive apprenticeship; the learning of and introduction to the practical skills and tasks associated with the profession; and, the introduction to the ethical comportment, social responsibility and roles of the profession. This idea of the three apprenticeships suggests that some skills are better learned as part of the period of academic training, whereas others are best learned through practice in the period after graduation. However teaching is to be learnt, the question of *what* must be learned depends on the purpose and priorities of teacher education. Sockett (2008) has described a three-legged conflict of purpose in teacher education, raising the following question: “Is education (a) a vocational and socializing endeavor, or (b) for the transmission of knowledge and culture, or (c) focused on the development of the individual?” (p. 49). To answer this question, Sockett proposed four models of moral and epistemological purposes in teacher education. The first model regards knowledge as the purpose of education and moral purpose as a matter of virtue. The second model mainly emphasizes the development of the individual and individual nurture (i.e., teachers’ relationships with children). The third model highlights “the teacher’s adaptive expertise, with moral emphases geared to social purposes” and the strong belief in the “integrity of educational research as a social science with explicit assumptions about knowledge, truth and belief” (p. 49). The fourth model emphasizes teaching as primarily a moral activity and the integration of academic content with moral and intellectual virtues.

In a similar manner, Eraut (1994, p. 119) argued that each profession should ask itself the following questions: what is and what should be the professional knowledge base? What knowledge is best learned in higher education? What knowledge is best learned in professional practice? What knowledge is best learned through an integrated course involving both contexts? What knowledge must be learned before qualification? What can be postponed until after qualification? Teaching as a profession has been argued not to have reached a consensus on these issues (Sockett, 2008, p. 62).

However, while these theoretical and research-based discussions about teacher education have been continuing, policy development has taken giant steps in the

European Higher Education Area. The introduction of the Qualifications Frameworks has made a substantial impact on the purpose and goal of professional education, including teacher education. The purpose of these frameworks is to improve “comparability and transparency” within the European higher education area, “facilitating movement of learners within, as well as between, higher education systems”, and also help to “develop models and study programs based on learning outcomes” (London Communiqué, 2007, p. 3). A central understanding within the process of introducing the qualification frameworks is that higher education institutions must change their traditional models and methods in order to live up to their public remit, where preparation for the world of work and employability are the main goals (Bologna Working Group on Qualifications Frameworks, 2005; Karseth & Solbrekke, 2010). One of the main features of Qualifications Frameworks are clearly defined learning outcomes, identified as “statements of what a learner is expected to know, understand and/or be able to do at the end of a period of learning” (Bologna Working Group on Qualifications Frameworks, 2005, p. 29). These standard Qualifications Frameworks are translated into National Qualifications Frameworks, and are to be incorporated into the curriculums and study plans of different programs. The learning outcomes are not only described for specific subjects or professions, but also address generic skills that are thought to be important for a range of tasks and roles.

The introduction of Qualifications Framework seems to inevitably involve some changes in the implicit view of the role and value of learning and professional education. Such issues and aspects around the introduction of the Qualifications Frameworks have been widely discussed (see e.g. Adelman, 2009), and as the frameworks are yet to be translated and applied in many national frameworks and professions, via curriculum planning, it is too early to say how qualifications framework thinking will be implemented. Karseth (2008) questions the possible impact of Qualifications Frameworks in higher education from the standpoint of institutional theory and resistance towards top-down reforms in higher education. Karseth also describes the overall thinking underpinning the Qualifications Frameworks as an instrumental curriculum approach in higher education, in contrast to a traditional curriculum approach which foregrounds disciplinary content and its

mastery (Karseth, 2008). In this way, higher education's contemporary, increasing focus on employability, learning outcomes, transferability and generic skills, may be better understood through classic theories about the relationship between higher education and work, as presented by Parsons (1978) and Parsons & Platt (1973), where the role of education is producing fully-fledged professionals, with appropriate skills and qualifications, and who are ready to work.

### ***1.3. The heterogeneity of the teaching profession***

It has been argued that the introduction of new ways of organizing professional education can encounter difficulties in confronting the established curriculum discourses in higher education and teacher education, and the differences between different groups within the teaching profession. For instance, Karseth (2006) distinguished between two classical curriculum discourses in higher education in general, the vocational/professional discourse and the discipline-oriented discourse. In the discipline-oriented discourse, education is viewed as an apprenticeship into more elaborate and powerful ways of knowing, and it is explicitly stated that teachers in higher education set the goals and select the curricula. The driving force is knowledge production itself. In contrast, the vocational discourse views education as an apprenticeship into specific knowledge domains so as to develop the skills that are relevant for specific professional work. Students who have acquired the knowledge base and the relevant technical skills are then ready to practice as professionals. Sullivan (2005) described professional education in all Western countries as a "competition between practitioner-controlled and school-based forms" (p. 27). Within teaching, Fenstermacher (1994) put forth a similar argument, distinguishing between the P-discourse (*P* stands for "practice," similar to the vocational/professional discourse) and the R-discourse (*R* stands for "research," similar to the discipline-oriented discourse). Within these discourses, the understanding of what constitutes valid knowledge differs: practical, specific and situational knowledge is emphasized in the P-discourse, whereas technical, abstract, often written knowledge is emphasized in the R-discourse. Bulterman-Bos (2008) argues that the educational views of teachers and researchers are a result of the differences in work roles.



The emphasis on these differences *between* the different arenas of teacher education and teaching might mask further differences *within* these arenas. The teaching profession is often considered to be a unified group with consistent interests. However, many routes lead into teaching, and the heterogeneity of the profession is exemplified by the many different educational pathways that lead into teaching. This raises the question as to whether teachers and teacher educators, with very different backgrounds, see the teacher role differently and place different emphases on the academic, practical and normative aspects of teaching.

The various routes into teaching often place differing emphasis on the practical or theoretical curriculum. Zeichner (2008, pp. 263–268) has described how teacher education in America varies greatly, ranging from a Master of Arts degree in teaching, taught at universities and emphasizing liberal arts and content preparation, and with little emphasis on formal class work preparation, to community-based teacher education programs that emphasize work-based experience and which aim to develop the cultural competence of teachers. Such parallel tracks into the teaching profession are found in many countries, providing teachers with very different professional backgrounds. In Great Britain, a movement toward increased on-the-job training has taken place, to counteract the traditional orientation toward academic knowledge (Korthagen & Kessels, 1999; Sundli, 2001).

In Norway, the case in question, the most common entry route for elementary school teachers is a general teacher education program. Students in these programs follow a curriculum developed by their university college, which is guided by a national curriculum framework. Variations between these kinds of programs only reflect differing areas of specialization. However, there are several routes into teaching in elementary schools, involving different educational backgrounds. Those who originally trained as preschool teachers often teach in the early grades of elementary school, although they have been through an educational program with less emphasis on disciplinary knowledge and more emphasis on pedagogical and didactical questions. Many teachers also follow a higher education route, with a 1-year undergraduate teacher training program course following a master's degree; this group will therefore have more training in an academic discipline than for other groups. There are also teachers without any formal qualification (often with some

higher education but without the 1-year undergraduate teacher training program course). Berg (1999, p. 27) has argued that these different groups of teachers have different academic traditions: preschool teachers are oriented toward childcare and emphasize collaborative organization of the work; general teachers have a background in elementary education and its *Bildung* tradition; teachers with a university degree trace their work back to more elite-oriented schooling traditions; and vocational teachers are largely influenced by their own vocational background.

In many ways, the Norwegian general teacher education program can be understood as caught in the intersection between a discipline-orientation and vocational-orientation in higher education. This is particularly clear when we consider the background of teacher educators; a key group that introduces a further potential source of variation. Although formal education for teachers has been placed in 4-year programs in university colleges, teacher educators have long been recruited from both academic disciplines and from the practical world of teaching to a various extent. Thus, the tension between the practical and vocational discourse has been fairly explicit. In the university college sector (where general teacher education in Norway is based), many have argued strongly in favor of what has been referred to as a “normative practical discourse” (Karseth, 2006, p. 261), where practical training is seen as good in itself in a way which is often contrasted to academic traditions. As Haug (2003, pp. 171–173) has discussed, this has created a demarcation line in teacher education, which saw the introduction of designated time for research and development (R&D) among teaching staff met with considerable skepticism, as many staff saw themselves as trainers, with little experience of, or interest in research methods. As these issues illustrate, those training teachers can be expected to have backgrounds as varied as teachers themselves.

Based on differences in training and experience among teachers and teacher-educators, questions can be raised in relation to how these differences may influence views about the most important skills for teaching, and teachers’ and educators’ normative values. As discussed in section 1.1, and illustrated by the discussion of the Norwegian situation, it seems reasonable to expect that teachers with different backgrounds will place different emphases on the value of academic knowledge or practical skills. Variation can also be expected in terms of attitudes toward inclusion.

Avramidis and Norwich (2002) found that in general teachers have a positive attitude toward inclusion as a principle in education, but are reluctant to include special needs students in their own classrooms, and teacher attitudes toward inclusion are thought to be more strongly influenced by the nature and severity of the disabling condition than teacher-related variables. The same study also found that length of teaching experience seems to have an effect on attitudes, with younger and more inexperienced student teachers being more positive toward inclusion. Student teachers are known to hold similar views to practicing teachers on these issues: student teachers are generally positive towards inclusion, although those specializing in natural sciences are less so. This suggests that discipline orientation may well have an impact on student teachers' judgments (Avramidis et al., 2000). Silverman (2007) also found that pre-service teachers described themselves as having higher-level epistemological beliefs (i.e. being more positive toward inclusion and not seeing knowledge as definite and absolute). Thus, one could hypothesize that those who emphasize theoretical knowledge are more positive toward inclusion.

The following three sets of hypotheses are proposed:

*Hypothesis 1: Variations between teacher education and practice in schools:*

- a. Teacher educators emphasize academic knowledge more than teachers in schools.
- b. Teachers in school emphasize practical skills more than teacher educators.
- c. Teachers are more skeptical toward inclusion than teacher educators are.
- d. Novice teachers' views are more like teacher educators than teachers in schools, due to the socialization they undergo during education.
- e. Novice teachers are more positive toward inclusion than experienced teachers.

*Hypothesis 2: Variations at an individual level:*

- a. Teacher educators, novice teachers and experienced teachers who greatly value theoretical knowledge assign less importance to practical skills.
- b. Teacher educators, novice teachers and experienced teachers who emphasize academic knowledge are more positive toward inclusion.

*Hypothesis 3:* Within teacher education and schools, the attitudes of teacher educators and teachers are influenced by their different academic backgrounds:

- a. Teacher educators with a “more academic” background (higher education in a specific field) are more positive toward theoretical knowledge, less positive toward practical skills and more positive toward inclusion.
- b. Teachers with a “more academic” background (higher education in a specific field) are more positive toward theoretical knowledge, less positive toward practical skills and more positive toward inclusion.

## **2. Variables**

The data used here are taken from two surveys distributed by e-mail in 2008: Teacher Educator Data 1 (TeData 1) and Teacher Educator Data 2 (TeData 2). All schools have contracts as placement schools connecting them to teacher education (as sites for practical training in the general teacher education program).

TeData 1, a cross-sectional survey of 111 Norwegian schools, was distributed by e-mail during the summer of 2008; an overall response rate of 62% was achieved. Of the 2205 teachers who responded, 218 had 3 years of experience or less and were defined as novices in the analyses.<sup>2</sup> The responses of these 218 teachers were compared with those of the 677 teachers with 8 to 15 years of experience. TeData 2 was distributed by e-mail during the winter of 2008 to 19 of 20 teacher education institutions in Norway.<sup>3</sup> With a response rate of 49%, the survey provides data on

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<sup>2</sup> The first 3 years of teaching are characterized by many as a distinguishable period in a teacher's career, and the teacher is often referred to as a novice or an advanced beginner in contrast to a competent professional (Berliner, 1994; Day, Sammons, Stobart, Kington, & Gu, 2007).

<sup>3</sup> The Sámi teacher education was not included in the survey.

547 teacher educators. Addresses for respondents for this survey had been provided by local administrations, and some of those invited to take part replied by email that they were unsure as to whether they teach student teachers or other students (i.e., they did not see themselves as teacher educators). A portion of the nonresponses may be attributed to this lack of clarity about their role and, thus, may have introduced a bias in the material in favor of those who work explicitly in teacher education. The institutions also included some respondents who did not belong in the survey at all, which could indicate that the actual response rate was somewhat higher, probably between 55% and 60%.<sup>4</sup> Many of the questions in TeData 1 and TeData 2 were similar, making it possible to compare the answers of teacher educators, novice teachers and experienced teachers.<sup>5</sup>

In the analyses presented in the following sections, three indexes are used to examine attitudes toward theoretical and practical knowledge and inclusion.<sup>6</sup> Survey respondents were first asked to rate 10 statements on what it takes to be a successful teacher in compulsory education today, on a scale from 1, not important, to 6, very important. All variables and items are presented in Table 1. In order to ease interpretation of the variables, and try to reduce these numerous variables into latent, broader factors, an exploratory factor analysis<sup>7</sup> was performed. A graphical interpretation of the scree plot produced in SPSS indicated two factors: the first factor had an estimated eigenvalue (i.e. the amount of the variance in the total sample accounted for by that factor) of 3.4, and the second factor had an estimated eigenvalue of 0.7 (the third extracted factor had an estimated eigenvalue of only 0.28). These findings supported a two-factor structure, where questions relating to

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<sup>4</sup> In a survey of nursing educators, preschool teacher educators, physiotherapy educators and social work educators, which was organized in the same way as TeData 2, the inclusion of the question “I do not teach any ... students (Yes/No)” led to a deletion of about 5% of the respondents, thus correspondingly increasing the response rate (Author, 2011). The question was included based on the experiences with TeData 2.

<sup>5</sup> The differences in number of respondents between table 1 and the response rate are due to missing answers on single items from some teachers. They are thus excluded from the analyses.

<sup>6</sup> All three indexes were developed at the Centre for Behavioural Research, University of Stavanger, and at the Centre for the Study of Professions, Oslo and Akershus University College for Applied Sciences. The questions concerning teacher competence are included in this survey for the first time. The questions concerning inclusion were presented in Munthe and Thuen (2009, p. 569).

<sup>7</sup> Principal factor analyses with oblimin rotation. Scree plot used for extraction of factors (see e.g. Kim & Mueller, 1978, for an overview of criteria and a discussion).

having “good knowledge” loaded on the first factor and two questions concerning discipline and control loaded on the second. Two questions concerning motivation and mastering many modes of teaching loaded on both factors. Instead of excluding them from the analyses, they were grouped together with discipline and control because these four variables relate to practical skills, whereas the six other factors relate to different aspects of academic knowledge. Thus, two indexes were constructed: one index represented practical skills, and the other represented academic knowledge. The internal consistency of the indexes, measured by Chronbachs alpha, was satisfactory (i.e. higher than 0,6, see Table 1).

The second set of variables relate to the dilemma of inclusion or exclusion of students described as having special needs and challenges. It consists of six items on a scale from 0, totally disagree, to 5, totally agree (see Table 1 for items). A high score on this index indicates a positive attitude toward inclusion (the scale is reversed so as to ease interpretation). Factor analyses of these items indicated that all variables loaded on one factor, the inclusion factor. All three indexes were computed as sum score of variables, by adding each item within the sum score variable and then dividing by the number of items.

For all the dependent variables, especially those discussing attitudes towards inclusion, it should be emphasized that responses cannot offer a precise measure of what the respondents would actually do, but rather what they believe they would do. It could also be the case that these questions, being so significant in discussions of teaching and teachers, may lead to response bias as respondents answer in line with dominant discourses, rather than in line with their own opinions. However, as the empirical topic of this paper is the attitudes and beliefs dominant in different groups within the teaching profession, these questions still offer an appropriate source of information.

As discussed in section 1.3, the teaching profession is heterogeneous; thus, it is important to include different subgroups of teachers and control for well-known confounding variables such as workload and practical experience. The independent variables included can be grouped into four categories: (a) employment status, (b) discipline orientation and educational level, (c) experience and (d) demographic variables. Because teacher educators and teachers in schools have different

educational careers and work situations, different questions had to be posed to the groups in some cases to cover the same topics.

Employment status was measured using teachers' employment percentage at their institution (0%–100%); this was reverse coded so as to compare those who work on a less than full-time basis (from here on referred to as 'part time') with those who work on a full-time basis. Teachers in schools were also asked how many students and subjects they taught this school year and whether they had extra administrative responsibilities such as being a teacher leader in one grade or being responsible for a class.

Discipline orientation was measured based on teachers' and teacher educators' educational backgrounds, (i.e., whether they had been trained in humanities, natural sciences, social sciences, education or other areas of study). For teacher educators, discipline orientation is based on their highest academic degree attained, but for teachers in schools, discipline orientation refers to their area of specialization in their general teacher education training (their qualification for teaching in different subjects). For teacher educators, discipline orientation was also measured based on the question of how much time they spent on R&D (0%–100%, also reverse coded). Teacher educators were asked to state the highest level of academic degree they had attained (with a PhD being the highest and serving as a dummy for those with an academic degree lower than a PhD). Teachers in schools were also asked whether they act as a leader for a group of teachers teaching the same subject (subject team leader) as this position indicates an extra commitment to the subject or discipline. In addition, teachers in schools were asked what kind of teacher education program they had taken. General teacher education was used as a reference category in a comparison with a combined group comprising preschool teachers, teachers with a 1-year undergraduate teacher training program (requirement for employment in primary and secondary schools for candidates with a higher vocational or academic educational background), teachers with vocational teacher education and teachers not qualified as teachers.

Experience based on respondents' current teaching job was examined for both groups using age as a proxy, as age and experience are highly correlated (Pearson's

$r > 0.8$ ). Teacher educators were also asked how many years of experience they had teaching at university colleges/universities, and years working in elementary school.

The demographic variables are age and gender (reference category: male).

## 2.1 Methods

Three different kinds of analyses were carried out to test the hypotheses. To examine the differences between various groups (hypotheses 1a to 1e), a one-way Analysis of Variance (ANOVA) was followed by the Scheffé post hoc test to identify significant differences; this allows us to compare group means on different statements. The results from these tests are included along with the descriptive statistics in Table 1. To analyze the relationships between attitudes on the individual level (hypotheses 2a and 2b), Pearson's  $r$  values were calculated for the three constructed indexes (table 2). Finally, linear regression analysis (table 3 and 4) was conducted to examine the relationships between the indexes and the different independent variables (hypotheses 3a and 3b).

Because the purpose of this paper is to make comparisons among teacher educators, novice teachers and experienced teachers, all analyses were carried out on all three groups separately. One exception is the regression analysis of teachers in schools, where experience was instead included as a control variable because this illustrated the difference between experienced and less experienced teachers, while controlling for other relevant background variables.

Intraclass-correlation coefficients indicate that the institutions where teacher educators worked explained almost none of the variation in responses; that is, the observations were independent in this respect (Raudenbush & Bryk, 2002, pp. 36, 71). For teachers in schools, between 0% and 8% of the variance could be explained by the institutions where they worked. Thus, to some extent, the observations could not be treated as independent. In the regression analysis, the respondents were treated as clustered within schools, using clustered robust standard errors.<sup>8</sup>

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<sup>8</sup> See *Analyzing correlated (clustered) data*. Retrieved November 21, 2011, from UCLA: Academic Technology Services, Statistical Consulting Group Web site: <http://128.97.141.26/stat/Stata/Library/cpsu.htm>



**Table 1:** Indexes, items, mean values, number of respondents, standard deviation (SD), Cronbach's alpha values and tests for differences among groups

Variable	Novice (0-3 years)				Experienced (8–15 years)			
	Obs	Mean	SD	Cronbach's alpha	Obs	Mean	SD	Cronbach's alpha
<b>Academic knowledge - index<sup>*</sup>, ** (1-not important, 6-very important)</b>	<b>212</b>	<b>5.1</b>	<b>0.5</b>	<b>0.7</b>	<b>640</b>	<b>5.2</b>	<b>0.5</b>	<b>0.8</b>
To have good content knowledge in the subjects <sup>**</sup> , <sup>***</sup>	214	5.6	0.6		667	5.7	0.6	
To have good knowledge on children's development <sup>*</sup> , <sup>***</sup>	214	5.4	0.8		665	5.5	0.7	
To have good knowledge on learning <sup>***</sup>	214	5.6	0.7		663	5.7	0.6	
To have good knowledge on curriculum analyses <sup>**</sup> , <sup>***</sup>	214	3.9	1.0		658	4.1	1.2	
To have good knowledge on group processes and social relations <sup>*</sup> , <sup>***</sup>	212	5.0	0.9		661	5.2	0.8	
To be able to give reason for choices and priorities <sup>**</sup> , <sup>***</sup>	214	5.0	0.9		662	5.0	0.9	
<b>Practical skills - index<sup>**</sup>, <sup>***</sup>,(1-not important, 6-very important)</b>	<b>213</b>	<b>5.6</b>	<b>0.4</b>	<b>0.6</b>	<b>650</b>	<b>5.6</b>	<b>0.5</b>	<b>0.6</b>
To be able to motivate <sup>***</sup>	215	5.8	0.4		662	5.8	0.5	
To master many modes of teaching	214	5.4	0.7		663	5.5	0.7	
To be able to keep discipline in the class <sup>**</sup> , <sup>***</sup>	215	5.6	0.6		667	5.6	0.6	
To be able to keep control in the class <sup>**</sup> , <sup>**</sup>	214	5.7	0.6		662	5.6	0.6	
<b>Inclusion - index (reverse coding)<sup>**</sup>, <sup>***</sup> (0-totally disagree, 5-totally agree)</b>	<b>210</b>	<b>2.4</b>	<b>0.9</b>	<b>0.8</b>	<b>632</b>	<b>2.5</b>	<b>1.0</b>	<b>0.8</b>
Weak students learn best outside the classroom (reverse) <sup>****</sup>	212	2.9	1.2		650	3.2	1.3	
Children with major behavior problems have trouble in ordinary groups of students (reverse) <sup>**</sup> , <sup>***</sup>	212	2.1	1.2		649	2.1	1.2	
Children with major learning disabilities have trouble in ordinary groups of students (reverse) <sup>**</sup> , <sup>***</sup>	212	2.5	1.3		643	2.6	1.3	

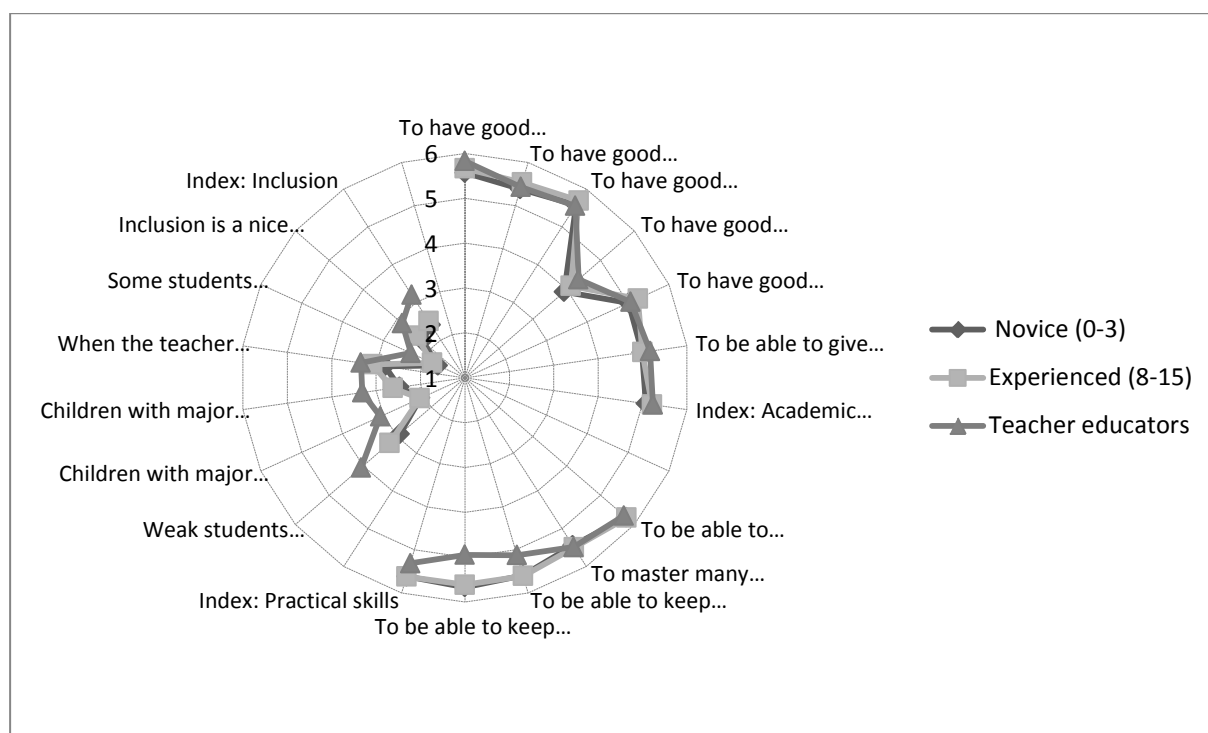
When the teacher organizes in favor of the weak students, it affects the teaching of the other students negatively (reverse)****	211	2.8	1.4	643	3.1	1.4
Some students demand so much that they are better off being taught outside the classroom (reverse)** , ***	211	1.7	1.0	649	1.8	1.2
Inclusion is a nice principle, but hard to implement practically (reverse)** , ***	212	2.3	1.3	647	2.4	1.4

\*: Novice mean different from experienced mean, \*\* novice mean different from teacher educator mean, \*\*\* experienced mean different from teacher groups different means (one-way Analysis of Variance [ANOVA], with Scheffé post hoc test),  $p < 0,05$ .

### 3. Results

In Figure 1, the mean scores on indexes and items presented in Table 1 are depicted as three different profiles in a radar diagram.

**Figure 1 Mean scores on items and indexes, presented as different profiles for the three groups**



All three groups considered academic knowledge (top right side of the diagram) to be an important part of teacher competence, with a mean score of 5.2 for teacher educators and experienced teachers, and 5.1 for novice teachers. Thus, hypothesis

1a, that teacher educators valued academic knowledge more than the other two groups, was not supported. The results from the post hoc tests indicated that the small difference between novice teachers and the two other groups was significant. One item in this index, “to have good knowledge on curriculum analyses,” was considered less important by all three groups, with a mean score of 3.9 for novices, 4.1 for experienced teachers and 4.4 for teacher educators. This is more than one scale-point lower than the index mean for teachers in schools, and 0.8 scale-points lower than for teacher educators. Thus, teacher educators rated curriculum knowledge as being more important than teachers in schools, and experienced teachers rated it as being more important than novice teachers.

It was also expected that teachers would value practical skills to a greater extent than teacher educators (hypothesis 1b). However, all three groups considered this to be important, with a mean score of 5.6 for novice and experienced teachers, and 5.3 for teacher educators (bottom of the diagram). As differences are found between teacher educators and the two groups of teachers, and the differences are greatest for the items relating to discipline (teacher educators have a mean score of 5.1, compared to 5.6 in the other groups) and control (teacher educators have a mean score of 4.9, while novice teachers have a mean score of 5.7 and experienced teachers 5.6), hypothesis 1b is partially supported.

In terms of attitudes toward inclusion (the left side of the diagram), a different profile emerged for the three groups. First of all, it should be noted that all groups are rather skeptical about inclusion, but teacher educators’ attitude toward inclusion (mean score of 3.2) differed significantly from those of the two groups of teachers (novice teachers had a mean score of 2.4, while experienced teachers had a mean score of 2.5). These differences were in line with hypothesis 1c. Novice teachers’ attitudes toward inclusion were more similar to teachers in schools than teacher educators, which is in opposition to hypothesis 1d. They also seemed rather negative toward inclusion, which does not support hypothesis 1e.

**Table 2 Pearson’s r among the three different indexes in the three different groups**

Practical skills                  Academic knowledge

*Novice (0-3 years)*

Practical skills

Academic knowledge	0.40*	
Inclusion	-0.03	-0.04

*Experienced (8-15 years)*

Practical skills

Academic knowledge	0.53*	
Inclusion	-0.04	0.11*

*Teacher educators*

Practical skills

Academic knowledge	0.44*	
Inclusion	-0.08	0.18*

\*  $p < 0.05$

In Table 2, the correlations among the three indexes are presented for teacher educators, experienced teachers and novice teachers. The results indicate a rather strong and positive correlation between the value of practical skills and the value of academic knowledge for all groups, with Pearson's  $r$  of 0.40 for novice teachers, 0.53 for experienced teachers, and 0.44 for teacher educators. Hence, these findings do not support hypothesis 2a, where an opposition between practical and academic knowledge was expected.<sup>9</sup>

For experienced teachers and teacher educators, there is a weak, but significant, positive correlation between academic knowledge and positive attitudes toward inclusion (0.11 and 0.18, respectively), and the same patterns holds in reverse: the more negatively the inclusion of weak students is thought of, the more negative the valuation of academic knowledge. However, the correlation is not very strong, and

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<sup>9</sup> If the two variables that loaded on both factors are removed from the index "practical skills," the correlations are still rather strong and positive, although, naturally, a little weaker.

this relationship is not found among novice teachers. Thus, the results obtained for experienced teachers and teacher educators moderately support hypothesis 2b, where a positive relation between academic knowledge and attitude towards inclusion was expected, but results obtained for novice teachers do not.

The final set of hypotheses concerned differences *within* the three groups. Table 3 is a linear regression for teacher educators, examining the relationships between the independent variables and the three indexes.

**Table 3 Ordinary least squares (OLS) regression on teacher educators (with clustered robust standard errors) on the three indexes practical skills, academic knowledge and inclusion. Reference category: male, 28 years old (youngest respondent), educated within educational science, master's degree or equal, no previous experience teaching in university colleges or elementary schools, full-time employed, no time used in teaching, no time used in research and development (R&D). \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$**

<i>Demographic characteristics</i>	<b>Practical skills</b>	<b>Academic knowledge</b>	<b>Inclusion</b>
Gender	0.154**	0.307***	0.226**
Age/experience	0.006*	0.005	-0.007
<b><i>Discipline orientation</i></b>			
Natural sciences	-0.118	-0.306**	-0.801***
Humanities	-0.035	-0.277***	-0.710***
Social sciences	-0.434***	-0.466*	-0.799**
Other area	-0.133	-0.106	-0.663***
Percentage of position dedicated to R&D	-0.001	-0.022	-0.002
PhD	-0.130*	-0.188	-0.032
<b><i>Experience</i></b>			
Years teaching at university colleges	0.001	-0.001	-0.002
Years as elementary school teacher	0.005	0.006	0.018**
<b><i>Employment status</i></b>			
Percentage of position dedicated to teaching	0.005	0.012	-0.043*
Employment status (100%-0%)	0.002*	0	-0.002
Constant	4.758***	5.039***	2.663***

$r^2$	0.058	0.171	0.147
$N$	487	494	487
Schools/clusters	19	19	19

Hypothesis 3a proposed that the attitudes of teacher educators toward academic knowledge, practical skills and inclusion are influenced by their academic background. The results show that teacher educators' area of specialization has several effects: in comparison to teacher educators with a background in education, those with a background in social sciences valued practical skills less. Teacher educators with a background in natural sciences, humanities or social sciences judge academic knowledge as being less important than those with a background in education (coefficients were -0.306, -0.277 and -0.466, respectively), and were also more negative toward inclusion (-0.801, -0.710 and -0.799, respectively). Teacher educators with a PhD were somewhat more negative towards practical knowledge (-0.130).

Teacher educators' overall experience (measured by age) had no significant effect on their views about practical and academic knowledge, but years as a school teacher had a significant positive effect of 0.018 on valuation of inclusion. Thus, hypothesis 3a is partially supported among teacher educators, as some differences are found indicating that the more academically oriented are more skeptical towards practical skills, but not more positive towards academic skills. They are not more negative towards inclusion, either. A comparison of teacher educators with full-time employment and those with less than full-time employment revealed that teacher educators with less than full-time employment saw practical skills as slightly more important (a regression coefficient of 0.002). The results also suggest that the more time teacher educators spent teaching in their position the less positive they were toward inclusion. The explained variances in the three models were 5.8%, 17.1% and 14.7%, respectively.

**Table 4 Ordinary least squares (OLS) regression with clustered robust standard errors on the three indexes practical skills, academic knowledge and inclusion. Reference category: male, 21 years old (youngest respondent), not educated as a general teacher, no extra qualifications in**

the discipline areas mentioned, not leading teachers in one grade, not a team leader within subjects, full-time employed. \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

<i>Experience/Demographic characteristics</i>	<b>Practical skills</b>	<b>Academic knowledge</b>	<b>Inclusion</b>
Gender	0.208***	0.232***	0.139
Age (proxy for experience)	0.001	0.009***	0.012*
General teacher education	-0.036	-0.057	-0.156
<b><i>Discipline orientation</i></b>			
Natural sciences	0.075*	0.078	0.198*
Social sciences	-0.005	-0.064	-0.021
Humanities	0.05	0.065	0.156
Other	-0.047	0.001	-0.005
<b><i>Employment status</i></b>			
Leader for teachers in one grade	0.174	0.202	0.085
Teamleader within subjects	-0.083	0.016	0.255
Workload (100%-0%)	-0.005**	-0.003	-0.002
Constant	5.395***	4.642***	5.265***
$r^2$	0.053	0.067	0.02
N	758	752	740
Schools/clusters	107	107	107

The analyses of school teachers are presented in Table 4. No differences between teachers with a general teacher education and those with other educational backgrounds were found, except that those specialized in natural sciences were more positive toward practical skills and inclusion (0.075 and 0.198, respectively). Hypothesis 3b, stating that teachers with a “more academic” background (specialization within a specific field) were more positive toward theoretical knowledge, less positive toward practical skills and more positive toward inclusion, is partially rejected among teachers in schools, as the only difference found was related to natural science teachers.

The only effect found from employment status was that the lower the workload the teachers had the less positive they were towards practical skills (-0.005). The results also showed that the more experienced (and older) teachers valued academic knowledge more highly and were more positive toward inclusion. Further analyses did not indicate any curvilinear relationships. The lower the workload of teachers, the less positive they were toward practical skills. The explained variances of the three models were 5.3%, 6.7% and 2%.

#### **4. There are differences—but not quite as expected**

The results of the hypothesis testing seem to show that teacher educators do not emphasize theoretical knowledge any more than school teachers; thus, hypothesis 1a is rejected. However, compared with teacher educators, teachers in schools seem to place a greater emphasis on practical skills, at least skills concerning order and discipline; hence, hypothesis 1b is partially supported. Hypothesis 1c is supported based on the evidence showing that teachers in schools are more skeptical toward inclusion. The results showing that novice teachers are more like teachers in schools than their teacher educators and that novice teachers do not seem to be particularly positive toward inclusion refute hypothesis 1d and hypothesis 1e, respectively.

The results show no differences in the emphases placed on theoretical knowledge and practical skills by the three groups of teachers; thus, hypothesis 2a is rejected. However, hypothesis 2b is partially supported: teacher educators and experienced teachers who emphasize academic knowledge are more positive toward inclusion, but this finding does not hold true for novice teachers.

The third set of hypotheses concerned differences in academic background. The hypotheses stating that teachers with a “more academic” background will place greater value on academic knowledge, less on practical skills and have a more positive attitude toward inclusion, is partially supported among teacher educators (hypothesis 3a) but partially rejected among teachers in schools (hypothesis 3b).

To answer the question of whether different groups in teaching have different views on the academic, normative and practical competencies involved in the profession, and about dilemmas faced in teaching, it is tempting to paraphrase Menges (1988, p.



259) and simply say that some do and some do not. Although differences exist, they are not clear-cut patterns as proposed in the three sets of hypotheses.

The first set of hypotheses proposed that large differences exist between teacher educators and teachers in schools. Differences do exist, but descriptions of these two groups as being from two different worlds, or being out of step with each other would appear exaggerated in light of these results. The differences concerning practical skills and theoretical knowledge are not as great as proposed, whereas the differences in attitudes toward inclusion are more or less as proposed, with the exception of novice teachers. These results are supported by the correlation analyses in Table 2: on the individual level, there is a positive, and rather strong, correlation between the valuation of practical skills and academic knowledge. Teacher educators, novice teachers and experienced teachers all recognize the importance of possessing both practical skills and academic knowledge in achieving success. For teacher educators and experienced teachers, a more positive valuation of academic knowledge is also correlated with positive attitudes toward inclusion, although more moderately. This finding could indicate that novice teachers find it more difficult to adapt their teaching to the various demands that inclusive practices raise.

The multivariate analyses reveal that teacher educators with a social sciences background view practical skills as *less* important than those with a background in education. Moreover, those with a background in natural sciences, humanities and social sciences consider academic knowledge to be less important than those with a background in education. These results are surprising and, again, certainly contradict any general description of a marked divide, or of two different worlds within teacher education.

Teacher educators with a background in education are more positive toward inclusion. In addition, teacher educators with experience in teaching in school are more positive toward inclusion. These findings suggest that teacher educators with a background in education are a distinct group in terms of their attitudes and beliefs. The teacher educators included in the present study reported long and often varied

career paths prior to their current role,<sup>10</sup> which contradicts the common claim that teacher educators do not have practical experience of teaching. Further research into the decisions that lead individuals to leave teaching and pursue a career in teacher education may reveal more about the distinguishing features of this group.

For teachers in schools, the findings are not as distinct, and are more in line with what was expected. In terms of scientific specialization, the only really surprising difference is that teachers who specialized in natural sciences are more positive toward inclusion.

The complexities of the findings call for further consideration and alternative explanations around several issues. One area requiring discussion and explanation is the contradiction of a majority of the hypotheses formulated in section 1.2 based on this study's results. The hypotheses were based on assumptions and findings in previous research. The lack of support for the hypotheses could, of course, be a result of weaknesses and limitations in the current study, or reflect country-specific features in Norway. However, it could also indicate that the use of large scale comparisons can bring new perspectives to the table, which should be investigated further in future research.

Another issue raised by the results in this paper is the understanding of the role of teacher education underpinning accounts of epistemic clashes and similar descriptions in previous research. This must be discussed in relation to the larger questions about the appropriate role of teacher education. Questions about teachers' competence and normative values are also related to a larger— and, perhaps, more difficult—question: What should be the role of teacher education in setting a standard for teaching and teacher education?

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<sup>10</sup> Teacher educators with a background in education had more than 10 years of experience as elementary school teachers on average, whereas teacher educators with a background in natural sciences had 5 years of experience; in humanities, 6.5 years of experience; and in social sciences, only 1.6 years of experience.

## **5. Teacher education – an important consideration in setting goals for schools**

It seems reasonable to assume that closeness to the varied demands of teaching—the interruptions, the diversity, the sudden shifts of attention between individuals and the group affects the understanding of what is possible to achieve in schools in terms of inclusion, as well as teachers' valuation of practical and theoretical knowledge and skills. Because inclusion is an explicitly stated ideal, which is put forward and manifested in different legislation and guidelines for teachers, it is important to keep the banner flying for inclusion. Solbrekke (2008) argued that the normative aspects in higher education are under pressure from new changes and reforms in higher education (e.g., the Bologna Process and the introduction of the Qualifications Frameworks). Sullivan (2005) and Sullivan and Rosin (2008) stated that the third apprenticeship, emphasizing ethical ideals and comportment, most often takes place in the period after graduation. However, if developing an ability to take a stand on ethical considerations is left solely to the field of practice, with its high pressure and plethora of competing voices, practical demands might trump ethical ideals. Teacher education can serve as an important correction to this development, by providing an alternative focus, as indicated by the different attitude towards the difficult dilemma of inclusion.

In acknowledgment of the complexity of the task of preparing teachers for life in schools, researchers have challenged the traditional university-based model of teacher education during the past few decades. For example, Kennedy (1990) has argued that a limited educational course can hardly cover all aspects of professional work. This argument naturally attracts attention to the question of what competence teachers need to perform their work, and where teachers should be taught (see e.g., Ben-Peretz, 2011; Boyle-Baise & McIntyre, 2008; Labaree, 2008; Zeichner, 2008; Zeichner & Conklin, 2008). It further stresses questions about how curricula can be organized in such a way that teacher education, and higher education in general, provides as good a preparation as possible for teachers.

However, as Solbrekke (2008) has suggested, questions regarding the values which should be emphasized by teacher education and teacher educators, and how they

should be emphasized, are neither simple nor easily resolved. Moreover, it is unclear which groups should have the right and opportunity to decide or influence which values are to be emphasized. As discussed earlier, renowned studies on professions (Parsons, 1978; Parsons & Platt, 1973) stated that universities should function as the producer and conveyor of the knowledge, skills and values necessary for professional work. Parsons and Platt (1973) argued, however, that teaching as a university discipline lacked the scientific rigor and the professional knowledge base necessary to fulfill this role (pp. 246–247). Similar arguments have been put forward by others in more recent discussions on the professional-scientific knowledge base in teaching (e.g., Hargreaves, 2007). If this description is correct, what would be the role of teacher education and teacher educators in setting the agenda for teaching, and what kind of teacher role does this imply? These questions are, of course, constitutive of the teaching profession and are among the most enduring questions concerning teachers and teaching. They need to be constantly addressed, as they are crucial for providing a sufficient qualification of new teachers.

Sockett (2008) distinguished between various ideals for teachers, described in section 1.2, with different connections between the epistemic and moral purposes of teacher education. The understanding of a gap or mismatch between teacher education and schools may be related to a perception of teachers as scholar-professionals, with knowledge as the purpose of education and moral purpose as a matter of traditional virtue. In light of this, the role of teacher education is to provide the professional knowledge necessary to work as a fully-fledged professional. If this is the expectation of novice teachers, it is easy to argue that teacher education has failed. If other roles are opened up for teachers (and novice teachers, accordingly), new perspectives on teachers and the transition from education to work also become available.

The findings of this paper illustrate that the differences among groups within the teaching profession are perhaps smaller than expected. Nevertheless, differences do exist, especially with regard to the understanding of the ethical demands and dilemmas in teaching. Whether these differences are viewed as being problematic or as having an important dynamic potential depends on the understanding of the role of teacher education in preparing individuals to become teachers. Teacher education

can play an important role in correcting and balancing the demands of a hectic workplace, like those found in most schools. The question is not whether the differences are large or small but whether they are appropriate or inappropriate. The answer depends on what kind of teacher role teacher education should prepare students for. The importance of teacher competence and professional knowledge base is continually debated in research and in the public realm. This debate is marked by shifting, and often competing, discourses.

Teaching and teacher education are also constantly brought up as important pivotal topics in political debates, and the national framework for teacher education and the school curriculum are the outcomes of political processes. Thus, discussions regarding what role teacher education should play in preparing individuals to become teachers and what expectations should be placed on novice teachers and experienced teachers, are highly political in nature. The results presented here indicate that the starting point for political/scientific discussions should not be based on the claim that teacher education is out of step with the realities of teaching. Furthermore, setting the goals for teacher education should not be based on an emphasis on transferability, internationalization and employability, instead of the curriculum approaches that focus on the integration of practical, normative and theoretical skills and knowledge, in order to prepare students for practical reasoning. Such an approach would mean putting old discussions about theoretical and practical knowledge and differences aside, and instead focusing on which differences should be accepted, which should not, and which should actually be embraced. This is a more fruitful, albeit more demanding, discussion that can provide a counterweight to policy initiatives based on labour market goals, changing the curriculum of teacher education, and higher education in general, profoundly.

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