

Reinventing Subject Teaching in Integrated Teacher Education Programmes for Primary School in Norway

Lise Iversen Kulbrandstad and Lars Anders Kulbrandstad

Introduction

Norwegian teacher education for compulsory school¹ was turned into a five-year integrated master's programme in 2017. This reform puts greater emphasis on subject teaching, profession orientation of all subjects and strengthening of the research base – for both teacher education programmes and teachers' professional practices (KD 2014, 2016a). In this chapter, we study this reinvention of subject teaching by tracing changes in the teacher education subject of Norwegian over the past forty years. We discuss ways in which this remaking helps ensure that teachers are equipped with powerful professional knowledge. The discussion draws on theories of professions, subject didactics, powerful knowledge and epistemic quality.

A few decades ago, subject teaching as part of Norwegian teacher education was based solely on transforming content from corresponding academic discipline studies. For example, the subject Norwegian relied on knowledge stemming from Nordic linguistics and Nordic literature studies. The teaching content primarily represented an extension of what was being taught in the subject Norwegian in upper secondary school, while, for instance, theories of literacy, which are very relevant for teachers of Norwegian in primary school, were not part of the curriculum. Subsequent reforms, both general reforms restructuring Norwegian higher education and reforms of teacher education per se, gradually changed the scope of subject teaching. The inclusion of teacher education in the University Act in the mid-1990s was groundbreaking because the act states that all study programmes must be research-based. This helped

strengthen subject didactics as a research-based discipline, for example, by funding large research programmes through the Research Council of Norway, and by the Ministry of Education offering PhD grants to teacher education institutions. Another significant change was the growing acknowledgement of teaching as a profession that needs to build on both specialized theoretical knowledge and practical knowledge, and as such is trusted to build practice on professional judgements (Molander and Terum 2008; Utdanningsforbundet 2009).

Multidisciplinarity and content relevant to professional practices are known as the hallmarks of study programmes which are characterized as professional studies (Smeby 2008: 88). Following the master's reform in 2017, teacher education subjects in Norway may be characterized as having been reinvented as professional studies since they are based on specialized knowledge from subject-didactics research as well as from the traditional academic disciplines and include teaching practice. This reinvention of teacher education subjects is shown in the fact that students can no longer have exams in academic discipline studies approved as part of their integrated teacher education, which had been possible up until quite recently. This is because these studies include neither subject didactics nor supervised teaching practice (KD 2016a: 7).

In this discussion, we describe the reinvention of subject teaching as part of integrated teacher education that is the outcome of reforms over the past forty years. We use teacher education for grades 1–7 and the subject Norwegian as our example. We outline its development in the light of theoretical perspectives able to contribute to the understanding of student teachers' professional development, and in terms of theoretical perspectives that further understanding of how content in school subjects is handled as part of teachers' professional practices. We rely on the concepts of theoretical and practical syntheses (Grimen), powerful knowledge (Young) and epistemic quality (Hudson). The overarching question we consider is in which ways can the reinvention of subject teaching in Norwegian teacher education contribute to ensuring that graduate teachers are equipped with powerful professional knowledge.

In the following, we first outline the theoretical perspectives of the study and describe the motivation for the selection of materials and choice of methods. We then present results of the analysis of developments in Norwegian teacher education with a focus on the reinvention of the subject Norwegian chiefly by strengthening of the subject didactics. Finally, we discuss the research question with respect to these results, earlier research and the theoretical perspectives.

Theoretical Perspectives

Grimen (2008) explores the knowledge base for practising a profession. He distinguishes between *theoretical* and *practical syntheses*. In each case, knowledge elements are joined together to create a larger whole. In theoretical syntheses, concepts are explicitly defined and form part of structures that satisfy requirements for rigor and consistency. Professional practices are characterized by the other way of using knowledge – practical syntheses – where the elements of knowledge are combined based on what is required in specific situations during professional practice. The knowledge base from which the elements are taken is mixed and partly consists of theories from various relevant academic disciplines and partly of knowledge which stems from the professionals' own experiences or from other practitioners of the profession. Teacher education programmes with their balance between theories and practice, but with an emphasis on theories, are a necessary qualification for making practical syntheses in teaching. Student teachers are supposed to both acquire knowledge from the different subjects they are studying and learn how to handle knowledge as part of their future professional teaching practices, which, for example, means how to choose content and how to ensure that all school students acquire relevant and significant knowledge. The subjects build on knowledge from both subject didactics and the subject's traditional corresponding academic disciplines. By studying these, the students should obtain a theoretical foundation for making practical syntheses while working professionally.

Subject didactics in teacher education in Norway builds on the German tradition of Didaktik (Gundem et al. 2003; Klafki 2000). A widely used definition in the Norwegian context is the following:

Subject didactics are all the reflections one can attach to a subject and to teaching this subject, which can provide increased knowledge about the subject's character, about the subject's legitimacy and increased knowledge about how the subject can be learned, taught, and developed. (Lorentzen et al. 1998: 8, our translation)

The didactical triangle focusing on the learner, the content, the teacher and the different relationships among them is a much-used model in subject didactics (e.g. Gericke et al. 2018: 437). In a report on teacher education in the United States, Bransford, Darling-Hammond and LePage (2005: 11) use a similar model to show how teachers' professional practice is developed. Their model is a Venn diagram with three circles representing knowledge about the learners

and their development, subject and curricular knowledge, and knowledge about teaching and assessment. The intersection of the three circles represents *teachers' professional knowledge* and a vision of professional practice. To denote the unification of all these knowledge sources to form subject teaching as part of teacher education, the expression *to didactify* a subject (Madssen 1998; Hertzberg 1999) or *to didactify* knowledge (Ongstad 2006) has been introduced².

In his article 'What Are schools For?' Young (2009/2016: 113, 110) discusses what kind of knowledge is important in schools and introduces the term *powerful knowledge* for specialized knowledge, knowledge that can provide the 'basis for generalizable principles', and 'reliable explanations or new ways of thinking about the world'. Later, he specified that this knowledge is not to be understood as canonical: '[s]ocieties change, so every generation has to ask those questions again' (Young 2013: 101). Thus, the question of what students are entitled to learn is central to Young when he elaborates on powerful knowledge as a curriculum principle (Young 2013: 107). Schools should both transmit past knowledge and make the next generation capable of using that knowledge to build new knowledge. Teachers on their side should ask, 'What are the meanings that this curriculum gives my students access to or does this curriculum take my students beyond their experience and enable to envisage alternatives that have some basis in the real world?' (Young 2013: 106). Discussing the meaning of 'power' in powerful knowledge, Muller and Young (2019: 210) stress the importance of power as 'generative capacity' and describe teachers as 'crucial mediators of the transformative capacity of PK [powerful knowledge] in their subjects'.

While Young's concept is widely debated (e.g. Beck 2013; Young 2015; Nordgren 2017; Hoadley et al. 2019), it has clearly led to a renewed focus on the rationale for choosing content for teaching. Gericke et al. (2018) discuss Young's theory in light of didactical research. They criticize a suggestion he made that curriculum can be separated from pedagogy; instead, they see the questions of what and how to teach as being integrated parts of didactical research. Thus, they propose an expansion of the theory, namely, that *transformation* should be a key concept when describing powerful knowledge in relation to, for example, school subjects. Gericke et al. (2018: 429) define transformation as 'an integrative process in which content knowledge is changed into knowledge that is taught and learned through various processes that take place outside and within the educational system at the individual, institutional and societal levels'. Bladh, Stolare and Kristiansson (2018: 399) argue that Young's concept of powerful knowledge can be 'clarified and deepened by linking it to [...] Wolfgang Klafki's

critical-constructive didactics' in which a theory of knowledge (categorical Bildung) and a theory of didactics (didactic analysis) are combined.

The discussion on powerful knowledge not only concerns the kind of content to be chosen or how it is transformed but also touches on the quality of the content school children are supposed to learn. Hudson (2018, 2019) discusses quality in light of the question of equity and access to knowledge. He introduces the concept of *epistemic quality* to address differences between two knowledge traditions in the teaching of mathematics, which offer students different opportunities to attain knowledge. One is characterized as having high epistemic quality. Here procedural knowledge of mathematical thinking and creative reasoning are fostered. The other approach is characterized as being of low epistemic quality because there is an overemphasis on propositional knowledge and rule following. These two quality characterizations are based on findings in didactical research projects in the field of mathematics (Hudson 2018: 394, 2019: 6). The concept of epistemic quality can thus be understood as an argument for bringing in different theoretical perspectives in subject teaching as part of teacher education – to broaden student teachers' knowledge base as well as develop their critical analytical competence to reflect on how theories meet practice.

Summing up, a combination of the theoretical perspectives can help us understand the concept of *powerful professional knowledge*: Teacher education subjects might contribute to student teachers' development of powerful professional knowledge by presenting a knowledge base built on different theories, making the students reflect on practice with the help of theories, and by focusing on the importance of the choice of content for quality teaching.

Materials and Choice of Methods

This chapter is part of a project on subject teaching in Norwegian teacher education in which we have conducted a qualitative content analysis of official documents from 1869 to 2017 (see Kulbrandstad and Kulbrandstad 2017). In the next section, we present the results of this study as a basis for describing the developments from 1980 to 2017. The documents analysed in this last period are primarily regulations issued by the Ministry, including curriculum guidelines. In addition, other texts like white papers, official reports and evaluations are brought in to contextualize the regulations. To use Goodlad's (1979) description of the curriculum's many forms of appearance, it is the overall levels we are

concerned with: the curriculum of ideas and the formally adopted curriculum texts. The curriculum texts analysed are listed in the appendix.

To describe the gradual profession orientation of subject teaching in Norwegian teacher education, we focus on how the content of the subject Norwegian in teacher education for primary school has developed. Our emphasis is on the changing framing of the subject, the successive integration of subject didactics and the different ways in which school practice is linked to the subject. A subsequent close-up elaborates on how reading and writing have been themed in changing programmes, and how the subject didactics of Norwegian emerged.

In addition to the official documents just mentioned, we base the discussion on earlier research and debate in the field and on our own personal experiences as teacher educators and researchers. We have work experience in teacher education since the 1980s and were active participants in the government-appointed committees for preparing the four most recent reforms of teacher education in 1998, 2003, 2010 and 2017.

Norwegian Teacher Education Reforms between 1980 and 2017

Teacher education programmes for grades 1–7 in primary school have always been integrated (concurrent) programmes – that is, parallel studies of pedagogy, subjects and subject didactics combined with practice. For secondary school teachers, the education was traditionally ‘consecutive’ (sequential), meaning that students finish academic studies in their subjects before they enter teacher education (Eurydice 2015: 32). Today, integrated programmes might also be chosen for lower and upper secondary schools. The strong national regulation of all teacher education programmes is typical for Norway (Hammerness 2013). Acts are voted by Parliament and regulations issued by the government. The regulations include curricula (e.g. KD 2016b), while on top of these are national guidelines for developing programme descriptions for the various subjects at the local institutions (NRLU 2016).

Norwegian teacher education for compulsory school has been reformed five times since 1992. The reforms have been typical examples of professionalism from above (Evetts 2003), where the government initiates the reforms and appoints expert committees of teacher educators, teachers and student teachers to develop drafts. The work in the committees opens up for professionalism from inside, to use Evetts’s concept. However, the Ministry itself sends the drafts on

broad hearings and finally establishes the curriculum as regulations to the law. While dissatisfaction with the quality of teacher education has been one reason for the frequent reforms, another is the need for change caused by school reforms and school results being below the expectations of politicians (Ekspertgruppa 2016). For subject teacher educators, strengthening subject didactics has been an important driving force in the changing reforms.

Table 2.1 shows the overall framework and main changes brought by the latest reforms, taking the 1980 reform as the starting point. During this period, the education was extended from three to five years. Before the 2010 reform, Norway had a unified teacher education for grades 1–10 which actually qualified for teaching all subjects in all grades of compulsory school, even subjects that were not part of a student's study programme. In 2010, two different programmes – one aimed at grades 1–7 and the other at grades 5–10 – replaced the general teacher education. The 2010 reform is characterized as a reform with an 'enhanced focus on subjects' (KD 2009: 16). This is partly because the programmes are aligned to grades and partly because students study fewer subjects and are given the opportunity to take more credits in each of them. Since then, graduated students only have qualifications to teach the subjects they have studied. The professionalization of the education is first and foremost strengthened by the definition of all teaching subjects as 'profession-oriented teacher education subjects' (KD 2010a: 4). The subjects should correspond to the subjects in basic school and include subject didactics. In addition, so-called basic skills should be integrated and the teaching practice should be 'rooted' in the subjects (KD 2010b: 3). Teaching practice as part of the subject studies is traced back to 1992, but not realized in the curriculum before 1999. Before then, practice was part of pedagogy, which was actually named 'Pedagogy – theory and practice'. Since 2010, the regulation requires practice to be supervised, varied, assessed and adapted to student teachers' chosen subjects. Earlier, teaching practice could have been in any subject. The regulation of the 2010 reform also explicitly stipulates that teacher education subjects have to be research-based and that the subjects must be 'rooted in a research-active academic environment' (KD 2010a: 4). By making the master's level compulsory in 2017, the research base has been taken one step further since the students are expected to write a master's thesis. At the same time, the master's extension also strengthens the professional orientation of the subjects, partly by the fact that the master's thesis is to be 'profession-oriented and practice-based' (KD 2016a: 5). When the thesis is written within a teaching subject, it must be firmly rooted in the subject and subject didactics:

Table 2.1 Norwegian Teacher Education Programmes for Compulsory School 1980–2017

	1980	1992/94	1999	2003	2010	2017
Name of programme		General teacher education (Allmennlærerutdanning)				Primary teacher education 1–7 or 5–10 (Grunnskolelærerutdanning 1–7 or 5–10)
Years of study	3	4	4	4	4	5 (master)
Qualifies for the grades	1–9	1–9	1–10	1–10	1–7 or 5–10	1–7 or 5–10
Compulsory subjects	Pedagogy: theory and practice Christianity Norwegian Arts and practical studies	Pedagogy: theory and practice Norwegian Mathematics Arts Mathematics Arts and practical studies Christianity Natural and Social sciences	Pedagogy Norwegian Mathematics Arts Christianity Natural and Social sciences Practical studies	Pedagogy Norwegian Mathematics Religion Reading, writing and mathematics for beginners	1–7: Pedagogy and pupil-related skills Norwegian Mathematics 5–10: Pedagogy and pupil-related skills	1–7: Pedagogy and pupil-related skills Norwegian Mathematics 5–10: Pedagogy and pupil-related skills
Practice in schools	Not decided in the curricula	80–90 days	100–120 days	100–110 days	At least 100 days	At least 115 days

Emphasis on didactics and professional orientation is an expression of the fact that the master's specialization is to be in a teacher education subject, and not purely disciplinary. In the concept of professional orientation, there is a close connection between subjects, subject didactics, pedagogy and practice. (KD 2016a: 6, our translation)

As shown in Table 2.1, Norwegian has remained a compulsory subject in all of the different reforms of teacher education for grades 1–7. Table 2.2 shows the quantitative growth from 15 to 30 ECTS. For the whole time, it has been possible to opt for Norwegian studies beyond the mandatory level, since 2017 all the way up to master's level, which means 120 ECTS.

When it comes to the main components of the study of Norwegian, we first note the change that came about in 2010. From then on, the content of the subject is no longer described. Instead, the learning outcomes the students should have accomplished after completing the study are stated. However, the subject's reinvention is already evident in the changes in content descriptions from 1980 to 2003. In 1980, we can clearly see traces of two traditional strands of the academic subjects, linguistics and literature, in the teacher education subject, namely 'knowledge about language' and 'literature reading'. In addition, the curriculum emphasizes 'oral and written language use', which partly refers to the students' own language mastery and partly to the analysis of language use. A restructuring takes place already in the first reform (1992–4). Neither the students' own language skills nor the academic disciplines appear as elements of the main content. These are expressed in very general terms such as 'text base', 'theory base' and 'approaches'. The theory base included perspectives from linguistics and literary theory as well as literacy studies and subject didactics. In the 1999 reform, language and text are highlighted through three different perspectives: a use perspective (work with), a theoretical perspective (knowledge about) and a subject didactics perspective (reflections on content in a teaching perspective). Literary texts are included in the text concept, but so too are non-fiction texts and student texts written in different grades at school. In the 2003 reform, the Ministry's detailed management was evident even in the design of the curriculum for each subject since it was decided that all curricula should have the same structure: 'Academic and subject didactic knowledge', 'Being a teacher of X-subject' and 'Collaboration and reflection.' For Norwegian, the last one of these areas was partly about the ability to reflect on the subject Norwegian and partly the ability to collaborate with colleagues on assessment and in interdisciplinary projects. With this topic, one might say that the

Table 2.2 The Teacher Education Subject of Norwegian 1980–2017

	1980	1992/1994	1999	2003	2010	2017
Volume of compulsory Norwegian	15 ECTS	30 ECTS	30 ECTS	30 ECTS	30 ECTS	30 ECTS
Main components of the study of Norwegian	<ul style="list-style-type: none"> - Knowledge of language - Literature reading - Oral and written language use 	<ul style="list-style-type: none"> - Text base - Theory base - Approaches 	<ul style="list-style-type: none"> - Work with language and text - Knowledge about language and text - Language and text in a teaching perspective 	<ul style="list-style-type: none"> - Academic and subject didactic knowledge - Being a teacher of Norwegian - Collaboration and reflection 	<ul style="list-style-type: none"> Learning outcomes in knowledge, skills and general competencies 	<ul style="list-style-type: none"> Learning outcomes in knowledge, skills and general competencies

student's competence is extended from what belongs to the individual subjects to the more general didactic perspectives. Academic and didactic knowledge are juxtaposed, and the profession orientation is apparent in the curriculum area 'Being a teacher of X-subject'.

As may be seen from the overview in Table 2.2, the foundations for reinventing subject teaching gradually strengthened during the period analysed. The fact that Norwegian as part of the current master's programme is studied as a profession-oriented teacher education subject entails that disciplinary knowledge and professional subject didactic knowledge are integrated, that the study subject is tuned to the school subject and its development, and that school practice is an important part of building up the students' knowledge base. Throughout, Norwegian is described as a subject concerned with language and texts. The master students are, for example, supposed to be able to reflect on the choice of texts adapted to children's age and background, texts that provide an entry point for Norwegian literature, and texts that open up for better understanding of oneself and others by developing imagination and empathy. At the same time, studies of language are supposed to build knowledge of one's own and others' language practices, as well as identity and insight into both critical reflection and an understanding of the ways languages and texts shape and are shaped by cultural communities. A democratic purpose is highlighted: The subject should qualify to work on language and texts in ways that develop confident and active participants who take part in democratic processes (NRLU 2016).

In the next section, we present a close-up on the reinvention by looking into two aspects of Norwegian subject didactics. The first concerns the teaching of reading and writing, which is an important part of the content that qualifies for teaching Norwegian in primary school. We illustrate how this topic has been dealt with through different eras of teacher education. Following up on this example, we look at the transition from methodology to subject didactics in the teacher education subject of Norwegian.

A Close-up on the Reinvention

As we have seen, subject didactics is an essential part of the professional orientation of subject teaching developed through reforms from 1980 to 2017. In the same period, subject didactics of Norwegian was established as a field of research (e.g. Smidt 1989; Hertzberg 1996; Dysthe ed. 2001; Madssen

1999; Kulbrandstad 2003; Ongstad 2004; Kulbrandstad 2009; Skjelbred 2010; Hvistendahl and Roe eds. 2014). This is a prerequisite for reinventing the teacher education subject as a multidisciplinary subject based on specialized knowledge from both subject didactic research and the traditional academic disciplines.

The essence of subject didactics is paying attention to the school subject and to teaching and learning. Throughout history, Norwegian teacher education programmes have had a concern for school practice. Yet, a crucial difference from the current situation is that for a long time the practical orientation existed without any specialized knowledge base. For example, the first national plan for teacher education in Norway from 1869 described a mother-tongue subject aimed at preparing the students for their work as teachers by including the reading book for elementary school as an important teaching material. Teaching methodology had a place in the subject since the student teachers were to be guided in how the reading book should be used in school. They also learned to practise one method of teaching beginning reading and writing (Kulbrandstad and Kulbrandstad 2017). In 1938, pedagogy became a central teacher education subject after having been established as an academic discipline. As part of teacher education, it took on a role as the subject in charge of the profession orientation by assuming the responsibility for the teaching methodology and the study of the school's curricula, among other things (Kvalbein 2002). Subject didactics gained a foothold in the subjects from the reform in 1980, but until the following reform this was primarily through collaboration with pedagogy and with an emphasis on how to teach. For example, reading and writing were to be taught as a methodology course in a partnership between Norwegian and pedagogy, yet without a foundation in theories and research. In 1992, methodology courses were replaced by theories of reading and writing and didactical perspectives as part of the subject Norwegian. In today's curriculum, literacy is an essential part of the subject in teacher education for grades 1–7. Attention is paid to different theories, research results, multimodality, reading and writing development, diversity of methods, assessment and adaptation to the school's increasing linguistic and cultural student diversity.

The changes in the content of the study of Norwegian obviously reflect changes in society, the school and the students' prerequisites, but not least changes in the view of what teacher education is. A significant transition was from understanding teaching as something for which one is principally trained by learning teaching methods to conceiving teaching as a profession resting on

‘a particular theoretical and methodological knowledge base acquired through higher education’ and which has ‘room for the exercise of professional judgement’ (Ekspertgruppa 2016: 31, our translation).

Supplanting methodology courses with research-based subject didactics also marks the transition from a situation where the profession orientation in teacher education was all about pedagogy to a situation where *all* subjects are to contribute to this orientation. For the teacher education subject Norwegian in particular, the interest in subject didactics can be traced back to the 1970s when an important initiative was the setting up of the national association for the teaching of Norwegian (Landslaget for norskundervisning, in short: LNU). In 1981, the association published a volume entitled *Norskdidaktikk* [Norwegian subject didactics]. The introductory article states:

Subject didactics is the putty that ties theory to practice, the airy world of discipline studies to the massive reality of school life. The students will have a more reflected relationship with their subject; learn to see their subject knowledge in relation to the tasks that await them in school. (Madssen 1981: 9, our translation)

Madssen draws a clear distinction between subject methodology and subject didactics and describes the emergence of subject didactics as a reaction to an overly strong methodology orientation in teacher education. A report from LNU on the Norwegian subject in school and teacher education argued for this change by focusing on the need for students to develop their understanding of the subject: ‘A student who has a conception of the subject³ does not only have knowledge, he/she can also see the subject as a whole. And, above all, he/she has a perspective on the subject, i.e. he/she can see it from outside, in broader contexts’ (LNU 1984: 158, our translation). The report also states that because the teaching profession as such requires constant action, teacher education must assist students in developing an ability to act based on theory. In order for teacher education to develop such readiness for action, changes in both theory and practice were later put on the agenda. The teaching of theory should be close to practice and the teaching of practices should be close to theory, to borrow an expression from Solstad (2010). Graduating from the master’s programme introduced in 2017 with Norwegian as their master subject, student teachers are supposed to be able to provide teaching rooted in research and experience-based knowledge as well as having specialized knowledge in their subject (KD 2016b: 2). In Norwegian, knowledge from both Nordic linguistics and literature is part of this specialized knowledge. The choices of

content from the academic disciplines are, however, different than before since content reflects to a greater extent what is needed to teach the school subject. Thus, more emphasis is put on children's literature as part of the literature studies, and on language development and multilingualism as part of the study of linguistics.

This close-up reveals the reinvention of Norwegian as a teacher education subject. As mentioned, the expression 'to didactify a subject' is used in Norway to describe such a process. For example, Ongstad (2004: 25, our translation) describes 'a well-developed, didactified profession-oriented subject' as a subject that has come far in integrating 'the subject didactic element in *the* subject so that the concept of "subject" (understood as the academic subject) is changed and the study content is in reality redefined. It has become the combination of subject and didactics.' Another way of putting this is that the professional practice of teachers of Norwegian should be built on a combination of knowledge of the subject, of the learners and of teaching (cf. Bransford et al. 2005).

Discussion

The research question framing this chapter is in which ways can the recent developments of subject teaching in Norwegian teacher education contribute to graduating teachers being equipped with *powerful professional knowledge*. With the subject Norwegian as our example, we described increased profession orientation as a *reinvention* of the subject and, in our view, the reinvention means a considerable step in the direction of preparing for powerful professional practices. Admittedly, concepts like Young's powerful knowledge or Hudson's epistemic quality were not on the agenda at the time the change took place. However, we see a concern for building an understanding of the purpose of teaching Norwegian and how it can contribute to the purpose of schooling, for providing students with meaningful ways of teaching, and for developing their critical analytical competence to reflect on how theories meet practice. This should be done not only by transmitting knowledge about past and present but also by envisaging alternatives, working on communication and choosing content that contributes to developing school children's identity, imagination, empathy and critical thinking.

Further, the quest for a specialized knowledge base is evident along with an awareness that development of this base requires extensive research efforts.

When teacher education passed from a three-year to a four-year programme, the Norwegian subject was expanded from 15 to 30 ECTS. These two changes reflect the realization that being a qualified teacher today demands a solid foundation in relevant knowledge. This was taken even further when teacher education became a five-year master's programme, including an independent research project leading to a 30 ECTS master's thesis. The rationale behind this important decision was that teaching entails the exercising of a profession that must be built on knowledge and insights from different epistemic traditions, the ability to perform critical reflection, a constant readiness to acquire new knowledge and a capacity to apply knowledge appropriately in complex practical situations (cf. Grimen's concept of practical syntheses).

The first cohort of students in the new teacher education programme have not yet completed their studies and thus we do not know how future Norwegian teachers will benefit from the reform. However, findings from research on teachers in Finland, where teacher education has been on the master's level since 1979 (Tirri 2014), indicate that going through an extended research-oriented academic education has considerably strengthened their professional competence. For instance, Afdal and Nerland (2014) interviewed newly graduated Norwegian and Finnish primary and lower secondary school teachers about how they thought they had developed through the teacher education and how they had experienced work as a teacher. The Finnish teachers held a master's degree, while the Norwegian teachers graduated from the unified, general Norwegian programme (the 2003 reform). The researchers found both common features and differences between the teachers from the two countries. As for the differences, the analysis showed that Finnish teachers tended to use a more academic vocabulary and more often referred to theory while describing their experiences. Overall, their knowledge base appeared to be more systematized and better structured than that of their Norwegian colleagues. Afdal and Nerland connect this dissimilarity to differences in the kind of teacher education the two groups of teachers had been given.

In summarizing the theoretical perspectives, we pointed to three essential criteria to enhance understanding of powerful professional knowledge: a firm foundation in relevant disciplinary theories and subject didactics, an ability to reflect on practice with help of this theoretical pool and a capacity to select and transform content and to choose methods for teaching given students in given contexts. We find that the analysis of how the teacher education subject Norwegian for grades 1–7 has developed over the past forty years reveals a move towards graduating teachers equipped with qualifications to realize such

powerful professional practices. Still, several caveats should be issued. First, even if all students who go through teacher education for grades 1–7 will be qualified to teach Norwegian, not all of them will have chosen Norwegian as their subject for an in-depth study on the master's level. Although statistics are not yet available, it is clear that relatively few students are opting for Norwegian as the subject for their master's project. Of course, master's projects in other disciplinary subjects or in pedagogy would give students experiences also of use for the role as teachers of Norwegian, but they will not have acquired the amount of specific powerful knowledge one might wish that all teachers of this particular subject possess.

Another caveat is the need that was observed to develop research-based teaching. An interview study by Munthe and Rogne (2015) of teacher educators and student teachers from the 2010 reform concluded that research was emphasized in programmes across the country. At the same time, the research base was characterized as more teacher-focused with students as audience than student-focused where students were involved in research. It is likely that this will change with the master's reform. However, another finding of Munthe and Rogne represents yet another possible caveat. They found that faculty with research experience was not available to all students, and fewer taught in the programme for grades 1–7 than the programme for grades 5–10. Another aspect of this challenge is that there are still more teachers being recruited to teacher education who hold a PhD in the traditional academic disciplines than in subject didactics.

Conclusion

In this chapter, we described and discussed the development of the teacher education subject Norwegian for primary school. We characterized this development as a reinvention of the subject. The analysis illustrates how the nature of the Norwegian subject has altered over the past five decades such that the subject has become increasingly more oriented to the profession. We see this both in the emphasis on research-based subject didactics as part of the subject's knowledge base and in the latest reform that turned teacher education for compulsory school into a master's programme with the possibility of in-depth subject studies and own research experience writing professionally oriented master's theses. This development is an important step in the direction of educating teachers who can perform powerful professional practices.

Appendix: Curriculum Documents Analysed

Year	Curriculum document
1980	KUD (1980), <i>Allmennlærerutdanning. Studieplan</i> . [General teacher education. Study plan], Oslo: Universitetsforlaget.
1992/ 1994	KUF (1994), <i>Rammeplan for 4-årig allmennlærerutdanning. Justert utgave, juni 1994</i> [General plan for four year general teacher education. Adjusted edition, June 1994], Oslo: KUF/Lærerutdanningsrådet.
1999	KUF (1999), <i>Rammeplan og forskrift. Allmennlærerutdanning</i> [General plan and regulations for general teacher education], Oslo: KUF.
2003	UF (2003), <i>Rammeplan for allmennlærerutdanningen</i> [General teacher education. National Curriculum Regulations], Oslo: UF.
2010	KD (2010), <i>Forskrift om rammeplan for grunnskolelærerutdanningene for 1.-7. trinn og 5.-10. trinn</i> , [Regulations relating to the framework plan for primary and lower secondary teacher education for years 1–7 and 5–10]. KD (2010), <i>Nasjonale retningslinjer for grunnskolelærerutdanningen 1. – 7. trinn</i> [National guidelines for primary and lower secondary teacher education for years 1–7].
2017	KD (2016), <i>Forskrift om rammeplan for grunnskolelærerutdanning for trinn 1-7</i> [Regulations relating to the framework plan for primary and lower secondary teacher education for years 1–7]. KD (2016), <i>Forskrift om rammeplan for grunnskolelærerutdanning for trinn 5-10</i> [Regulations relating to the framework plan for primary and lower secondary teacher education for years 1–7]. NRLU (2016), <i>Nasjonale retningslinjer for grunnskolelærerutdanning trinn 1-7</i> [National guidelines for primary and lower secondary teacher education for years 1–7].

Comments

The 2017 documents and several of the older ones are available in Norwegian and English at <https://www.regjeringen.no/no/tema/utdanning/hoyere-utdanning/rammeplaner/id435163/> (accessed 7 August 2020).

During the period 1980–2017, the responsible ministry has been known under different names and abbreviations:

- KUF [Kyrkje- og undervisningsdepartementet]: The Ministry of Church and Education
- KUF [Kirke-, utdannings- og forskningsdepartementet]: The Ministry of Church, Education and Research
- UF [Utdannings- og forskningsdepartementet]: The Ministry of Education and Research
- KD [Kunnskapsdepartementet]: The Ministry of Education and Research

In 2017, the Ministry of Education delegated to Universities Norway and its national group of teacher education (NRLU) to develop national guidelines for the different teacher education subjects. See: <https://www.uhr.no/temasider/nasjonale-retningslinjer/nasjonale-retningslinjer-for-larerutdanningene/>.

Notes

- 1 Compulsory school in Norway consists of a compulsory ten-year module divided into primary (grades 1–7) and lower secondary (grades 8–10) education. All students also have the right to a three-year continuation in upper secondary education.
- 2 Norwegian: å *didaktifisere* et fag or å *didaktifisere* kunnskap
- 3 Norwegian: fagsyn

References

- Afdal, H. W. and Nerland, M. (2014), 'Does Teacher Education Matter? An Analysis of Relations to Knowledge among Norwegian and Finnish Novice Teachers', *Scandinavian Journal of Educational Research*, 58 (3): 281–99. DOI: 10.1080/00313831.2012.726274.
- Beck, J. (2013), 'Powerful Knowledge, Esoteric Knowledge, Curriculum Knowledge', *Cambridge Journal of Education*, 43 (2): 177–93. DOI: 10.1080/0305764X.2013.767880.
- Bladh, G., Stolare, M. and Kristiansson, M. (2018), 'Curriculum Principles, Didactic Practice and Social Issues: Thinking Through Teachers' Knowledge Practices in Collaborative Work', *London Review of Education*, 16 (3): 398–413. DOI: 10.18546/LRE.16.3.04.
- Bransford, J., Darling-Hammond, L. and LePage, P. (2005), 'Introduction', in L. Darling-Hammond and J. Bransford (eds), *Preparing Teachers for a Changing World*, 1–39, San Francisco: Jossey-Bass.
- Dysthe, O. (ed) (2001), *Dialog, samspel og læring*, Oslo: Abstrakt forlag.
- Ekspertgruppa (2016), *Om lærerrollen: Et kunnskapsgrunnlag*, Bergen: Fagbokforlaget.
- Eurydice (2015), *The Teaching Profession in Europe: Practices, Perceptions, Policies*, Luxembourg: EU.
- Evetts, J. (2003), 'The Sociological Analysis of Professionalism: Occupational Change in the Modern World', *International Sociology*, 18 (2): 395–415. DOI: 10.1177/0268580903018002005.
- Gericke, N., Hudson, B., Olin-Scheller, C. and Stolare, M. (2018), 'Powerful Knowledge, Transformations and the Need for Empirical Studies across School Subjects', *London Review of Education*, 16 (3): 428–44. DOI: 10.18546/LRE.16.3.06.

- Goodlad, J. I. (1979), *Curriculum Inquiry: The Study of Curriculum Practice*, New York: McGraw-Hill.
- Grimen, H. (2008), 'Profesjon og kunnskap', in A. Molander and L. I. Terum (eds), *Profesjonsstudier*, 71–86, Oslo: Universitetsforlaget.
- Gundem, B. B., Karseth, B. and Sivesind, K. (2003), 'Curriculum Theory and Research in Norway: Traditions, Trends and Challenges', in W. F. Pinar (ed), *International Handbook of Curriculum Research*, 517–34, Mahwah, NJ: Lawrence Erlbaum.
- Hammerness, K. (2013), 'Examining Features of Teacher Education in Norway', *Scandinavian Journal of Educational Research*, 57 (4): 400–19. DOI: 10.1080/00313831.2012.656285.
- Hertzberg, F. (1996), *Norsk grammatikkdebatt i historisk lys*, Oslo: Novus.
- Hertzberg, F. (1999), 'Å didaktisere et fag – hva er det?', in C. Nyström and M. Ohlsson (eds), *Svenska i utveckling Nr. 13. Svenska på prov. Arton artiklar om språk, litteratur, didaktik och prov*, FUMS.Rapport nr. 196, 31–40, Uppsala: Uppsala universitet.
- Hoadley, U., Sehgal-Cuthbert, A., Barrett, B. and Morgan, J. (2019), 'After the Knowledge Turn? Politics and Pedagogy', *The Curriculum Journal*, 30 (2): 99–104. DOI: 10.1080/09585176.2019.1601844.
- Hudson, B. (2018), 'Powerful Knowledge and Epistemic Quality in School Mathematics', *London Review of Education*, 16 (3): 384–97. DOI: 10.18546/LRE.16.3.03.
- Hudson, B. (2019), 'Epistemic Quality for Equitable Access to Quality Education in School Mathematics', *Journal of Curriculum Studies*, 51 (4): 437–56. DOI: 10.1080/00220272.2019.1618917.
- Hvistendahl, R. and Roe, A. (eds) (2014), *Alle tiders norskdidaktiker: Festskrift til Frøydis Hertzberg på 70-årsdagen*, Oslo: Novus forlag.
- KD (2009), *St.meld. nr. 11. (2008–2009). Læreren. Rollen og utdanningen*, Oslo: Ministry of Education and Research.
- KD (2010a), *Forskrift om rammeplan for grunnskolelærerutdanningene for 1.–7. trinn og 5.–10. trinn*, Oslo: Ministry of Education and Research.
- KD (2010b), *Rundskriv F-05-10: Forskrift om rammeplan for grunnskolelærerutdanningene for 1.–7. trinn og 5.–10. trinn og forskrift om rammeplan for de samiske grunnskolelærer-utdanningene for 1.–7. trinn og 5.–10. trinn*, Oslo: Ministry of Education and Research.
- KD (2014), *Lærerløftet: På lag for kunnskapsskolen*, Oslo: Ministry of Education and Research.
- KD (2016a), *Rundskriv F-06-16: Forskrifter om rammeplaner for femårige grunnskolelærerutdanninger for trinn 1–7 og trinn 5–10 – rundskriv med merknader, og engelsk oversettelse*, Oslo: Ministry of Education and Research.
- KD (2016b), *Regulations Relating to the Framework Plan for Primary and Lower Secondary Teacher Education for Years 1–7*, Oslo: Ministry of Education and Research.
- Klafki, W. (2000), 'The Significance of Classical Theories of Bildung for a Contemporary Concept of Allgemeinbildung', in I. Westbury, S. Hopmann and K. Riquarts (eds),

- Teaching as Reflective Practice: The German Didaktik Tradition*, 85–108, Mahwah, NJ: Lawrence Erlbaum.
- Kulbrandstad, L. I. (2003), *Lesing i utvikling: Teoretiske og didaktiske perspektiver*, Bergen: LNU/Fagbokforlaget.
- Kulbrandstad, L. A. (2009), “‘Det finnes det vel ikke noe forskning på?’ Et eksempel på studentinvolvering i forskning’, *Acta Didactica Norge*, 3 (1): 1–21.
- Kulbrandstad, L. I. and Kulbrandstad, L. A. (2017), ‘Framveksten av et profesjonsrettet lærerutdanningsfag i norsk – nasjonale linjer og bidrag fra Hedmark’, in Morten Løvteit (ed), *Tidssignaler. Lærerutdanningsfag i utvikling. Utdanning av lærere på Hamar – 150 år*, 137–66, Vallset: Oplandske Bokforlag.
- Kvalbein, Inger Anne (2002), ‘Pedagogikkfaget i norsk allmennlærerutdanning – en historie om vekst og fall’, *Norsk pedagogisk tidsskrift*, 2–3: 111–22.
- LNU [Landslaget for norskundervisning] (1984), *Norskfaget i skole og lærerutdanning*, Lillehammer: LNU.
- Lorentsen, S., Streitlien, Å., Høstmark Tarrou, A.-L. and Aase, L. (1998), *Fagdidaktikk: Innføring i fagdidaktikkens forutsetninger og utvikling*, Oslo: Universitetsforlaget.
- Madssen, K.-A. (1981), ‘Fagdidaktikk: hva og hvorfor?’, in K.-A. Madssen (ed), *Norskdidaktikk*, 9–27, Oslo: LNU/Cappelen.
- Madssen, K.-A. (1998), ‘Oppsummerende rapport’, in *KUF: Kvalitativ evaluering av norskfaget i allmennlærerutdanninga*, *Norsk 1*, 4–40, Oslo: Ministry of Education.
- Madssen, K.-A. (1999), *Morsmålsfagets normtekster: Et skolefag blir til – norskfaget mellom tradisjon og politikk, avhandling for graden dr. polit.*, Trondheim: NTNU.
- Molander, A. and Terum, L. I. (2008), ‘Profesjonsstudier. En introduksjon’, in A. Molander and L. I. Terum (eds), *Profesjonsstudier*, 13–27, Oslo: Universitetsforlaget.
- Muller, J. and Young, M. (2019), ‘Knowledge, Power and Powerful Knowledge Re-visited’, *The Curriculum Journal*, 30 (2): 196–214. DOI: 10.1080/09585176.2019.1570292.
- Munthe, E. and Rogne, M. (2015), ‘Research Based Teacher Education’, *Teaching and Teacher Education*, 46: 17–24. DOI:10.1016/j.tate.2014.10.006.
- Nordgren, K. (2017), ‘Powerful Knowledge, Intercultural Learning and History Education’, *Journal of Curriculum Studies*, 49 (5): 663–82. DOI: 10.1080/00220272.2017.1320430.
- NRLU [Nasjonalt råd for lærerutdanning] (2016), *Nasjonale retningslinjer for grunnskolelærerutdanning trinn 1–7*, Oslo: Universitets- og høyskolerådet.
- Ongstad, S. (2004), *Språk, kommunikasjon og didaktikk: Norsk som flerfaglig og fagdidaktisk ressurs*, Bergen: Fagbokforlaget/LNU.
- Ongstad, S. (2006), ‘Fag i endring. Om didaktisering av kunnskap’, in S. Ongstad (ed), *Fag og didaktikk i lærerutdanning. Kunnskap i grenseland*, 19–57, Oslo: Universitetsforlaget.
- Skjelbred, D. (2010), *Fra Fadervår til Facebook: Skolens lese- og skriveopplæring i et historisk perspektiv*, Bergen: Fagbokforlaget/LNU.

- Smeby, J.-C. (2008), 'Profesjon og utdanning', in A. Molander and L. I. Terum (eds), *Profesjonsstudier*, 87–102, Oslo: Universitetsforlaget.
- Smidt, J. (1989), *Seks lesere på skolen. Hva de søkte, hva de fant*, Oslo: Universitetsforlaget.
- Solstad, A. G. (2010), 'Praksisnær teori og teorinær praksis - den nødvendige relasjonen', *Norsk pedagogisk tidsskrift*, 94 (3): 203–18.
- Tirri, Kirsi (2014), 'The Last 40 years in Finnish Teacher Education', *Journal of Education for Teaching*, 40 (5): 600–09. DOI: 10.1080/00313831.2012.726274.
- Utdanningsforbundet (2009), 'Landsmøtet 2009. Vedtak, sak 3.2. Morgendagens barnehage og skole', www.utdanningsforbundet.no (accessed 6 August 2020).
- Young, M. (2009/2016), 'What are Schools For?', in M. Young and J. Muller (eds), *Curriculum and the Specialization of Knowledge. Studies in the Sociology of Education*, 105–114, New York: Routledge.
- Young, M. (2013), 'Overcoming the Crisis in Curriculum Theory: A Knowledge-based Approach', *Journal of Curriculum Studies*, 45 (2): 101–18. DOI: 10.1080/00220272.2013.764505.
- Young, M. (2015), 'Curriculum Theory and the Question of Knowledge: A Response to the Six Papers', *Journal of Curriculum Studies*, 47 (6): 820–37. DOI: 10.1080/00220272.2015.1101493.

