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Response of the National Graduate School for Teacher Education, NAFOL, to the Call for a More Research Based Teacher Education in Norway

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The article discusses a common, yet blurred concept of “research based teacher education”. It describes the action taken in Norway to concretize the political and academic claim for making the education of teachers more research based. The focus is on the process leading up to the establishment of a Norwegian national graduate school in teacher education (NAFOL), as well as on the structure of the school as it has unfolded during the first three years of its planned period of seven years. The aim of the initiative of developing an innovative concept for a national graduate school (2010-2016) was to create a knowledge base in teacher education and to improve the quality of educational research in Norway. This was done within an inclusive network of teacher education institutions in dialogue with international research communities. Through NAFOL we try to give meaning to the concept A Research Based Teacher Education to avoid it becoming another buzzword without a structure which puts the concept into practice in a meaningful way.

Key words: Innovation, Graduate School Concept, Teacher Education, Practice-Oriented Research

The blurred concept of research based teacher education

An internationally agreed upon requirement for teacher education these days is that it should be research based. However, when it comes to defining what a research based teacher education entails; there is less agreement, or even little understanding of what it means. In this article we will examine some of the blurred issues related to the concept Research Based Teacher Education.

Consumers or producers of research?

A major question is the role of research in teacher education. Does research based teacher education mean that research is consumed by teacher educators and students? Published research is brought in as part of the lectures, course readings and in the students' assignments. Skills and techniques are sometimes taught and practiced by teacher educators because they can refer to research which has shown that certain techniques have worked well in other contexts, there is evidence of success. In such a scenario, teacher education can be perceived by some to be research based and the actors (teacher educators and students) consumers of research.

Another understanding of the concept is that teacher educators and students become producers of research. In this case, teacher educators draw upon their own research in lectures and seminars, and the approach to student learning is research based, the students find answers to questions they may ask by engaging in systematic enquiries about selected issues. In such a scenario teacher educators and students are producers of research. However, anybody who has been involved in any form of research activity knows that being a consumer of research is an integral part of conducting and producing research.

Murray & Male (2005) claim that teacher educators mainly act as consumers of research as many teacher educators' primary expertise is teaching and practical aspects related to teacher education. They come into higher education directly from school teaching and are often selected by other teacher educators due to their expertise in teaching. For these teachers, in the role of teacher educators, a research based teacher education would, to a large extent, mean that they expose students of teaching to relevant research literature. However, there are also teacher educators, mainly teaching the subject disciplines, who come into teacher education as researchers holding a doctorate, and they have not experienced school as teachers, only as students and, perhaps, parents. For this group of teacher

educators, who have entered teacher education directly from the academy, research is their primary expertise. They are likely to interpret a research based teacher education as being active producers of research (Smith, 2011a).

The question is whether research based teacher education has room for both approaches, or does one overtake the other? The situation in Norway has, for a long time, been that teacher educators, in university colleges mainly, are recognized for their expertise in teaching, whereas, currently, there is an increasing demand for all teacher educators to be engaged in producing research. The ideal teacher educator aiming at contributing to a research based teacher education should have teaching experience and also be an active and highly qualified researcher. The challenge is that there are not too many of that kind around.

What kind of research?

Other questions to be examined are what do we define as research, and what kind of research should a research based teacher education entail? Educational research has long ago moved away from only looking at positivistic research as accepted research, and ethnographic and hermeneutic as well as phenomenological approaches are common. Quantitative as well as qualitative methods are applied, probably with a preferred tendency towards qualitative methods. This is a development which, if it takes over educational research completely, might in the long run prove not to be beneficial to the field. A research based teacher education needs to draw on a diverse selection of high quality research. The criteria for research should be the quality of the research and not the methods of investigation.

An important role that research plays in teacher education is to build a strong bridge across the notorious gap between theory and practice. Students frequently question the role of theory in learning to become teachers, and teacher educators define their professional expertise to be either practical or theoretical (Murray & Male, 2005) and teach accordingly. There is, however, an increased acceptance of practice oriented research in teacher education, both in the consumption of as well as the production of such research. A simplified definition of educational practice-oriented research is that it conducts enquiries which are contextualised in the practice field, either in schools or teacher education institutions. When this kind of research takes place in schools, it might be an examination of teaching/learning practices in schools with the purpose of understanding the practice field. An alternative is to involve teachers in a kind of inter-

vention project, and then to document the process and outcomes of intervention, preferably jointly with teachers. In this way teachers become researching teachers, engaging in a systematic critical reflection over their own practice.

Currently, there is a strong tendency internationally (in Australia by John Loughran, the USA by Marilyn Cochran-Smith, The Netherlands by Fred Korthagen and Mieke Lunenberg, among many others) to encourage teacher educators working in academic institutions to engage in systematic and critical examination of their own teaching practice, mainly as action research (see McNiff et al., 2003), or in the form of self-studies (see Loughran et. al., 2004; Zeichner, 2007). This kind of practitioner research on own practice serves multiple purposes, all of which are related to the concept of research based teacher education. First, examination of one's own professional practice is meant to lead to improved practice, thereby improving the quality of teacher education. Second, when practitioner research is published nationally and internationally, the community of teacher educators share experiences and evidence based knowledge with teacher educators across borders. Evidence based knowledge about, in and with teacher education serves as the foundation for what John Loughran (2004) calls *the pedagogy of teacher education*. Thirdly, researching teacher educators act as models for the students by being open about how they, as teacher educators, continuously search for ways to improve their practice. In other words, they model what it entails to hold an attitude of enquiry as regards own practice, the importance of which is too often only preached.

We argue that practitioner research is an upgraded version of reflective practice, thus we warn against accepting reflection as research unless certain criteria are met. Reflection becomes research if there is a clear issue to be examined and improved, if it is supported by existing literature, if there is a systematic implementation and outcomes documentation, if there is transparent analysis of the documentation, and thoughts about future developments and enquiries. Finally, the process (study) should be presented to the professional community, such as to colleagues, a wider group of professionals, or in national or international conferences and journals (Smith, 2011b). Only when these criteria are met, can, as we see it, reflection processes be called research, and feed into the concept of research based teacher education.

Who are teacher educators?

Another, no less complex issue to discuss is who are the teacher educators who will engage in research based teacher education? Only institutional based teacher educators, or subject matter teachers and teachers for didactics and applied pedagogy, or should school-based teacher educators (mentors of student teachers' practice teaching) also be research active? Ideally, we would like to see all of the above actors being active in research when taking a comprehensive perspective of the concept research based teacher education. However, in reality the current situation is that mainly institutional based teacher educators engage in research, not always of their own choice, but often to comply with external demands. Academic promotion and institutional and personal financing in higher education are heavily based on the publication of research. Thus, we can see increasing research activity in teacher education in Norway and elsewhere. Capacity building of research communities in teacher education institutions is now on the agenda of many academic institutions (Hestbekk & Østern, 2011; Smith, 2012).

An increasingly greater part of teacher education takes place in schools (England, 2/3, Norway, integrated teacher education 8-13, 100 days as practicum), and the role of school based teacher educators (the mentors of student teachers' practice teaching) has become more central. Consequently, when talking about a research based teacher education, we cannot leave out the role of research in the clinical component of the education which is in the hands of teachers in their roles as mentors. To what extent are these professionals consumers and producers of research in their work as teacher educators? Long personal experience of teacher education (not systematically documented, thus not research based) suggests to us that research is not much used in school based teacher education. However, in Norway there are indications of change. As Norway is developing systems of accredited partner schools and mentor education, supported by policy documents (St.meld. 11 [White Paper 11], 2008-2009, National Framework for Primary Teacher Education, 2010), the opportunity to introduce research into the clinical component of teacher education is there, if we only know how to exploit it. Mentor education needs to be based on research, and mentor students (school based teacher educators) can be engaged in research (action research, self-study) as part of their course requirements. The aim is that we create a community of researching teacher educators whether based in higher education institutions or in schools.

Students as researchers in TE

An additional question when defining the concept of a research-based teacher education is the involvement of students in research. Commonly, students are viewed as consumers of research, especially at the early stages of their education. Our claim is that students can and should be involved with research from the very beginning of their education, by observing the practice field, by examining curricula, by looking critically at policy documents, etc. An integrated part of the pedagogy of teacher education is to develop a critical attitude in the students as regards their own practice and that of others. As they proceed in the education program, the issues under examination will differ and the methods of enquiry will expand. The above criteria for what can be called research should also apply to the students' research activity, and the presentations can be to peers or in the form of course assignments. Teacher education programmes should therefore be revisited to make enquiry a built-in component in the education. Having said this, it becomes more pressing that also school-based teacher educators (mentors) are research literate so they also can support the students' research engagement.

Conditions for research

Research-based teacher education is a comprehensive concept which we have tried to frame in the above discussion. However, considering the criteria for research which we have presented, it is clear that research is time-consuming. If we really want to have a research-based teacher education, there also have to be sufficient resources to support the claim. The situation in Norway currently is that mainly university based teacher educators have a time allowance to conduct research, whereas the situation is different for the majority of teacher educators in the many university colleges. They are required to be involved with research, but they are not given sufficient time to do so. As regards school based teacher educators, the situation is even worse. Most of them are not given extra time to mentor student teachers, and research time has not even been discussed. The lack of time will, in most cases, have a negative impact on the quality of the research carried out.

Advocating a research based teacher education is not too difficult, since there is wide support for this in research as well in policy documents. However, establishing research based teacher education is a challenge of another kind. It is an investment for the future, as it requires education, a change of tradition and attitude, and not least, resources. This requires

patient long-term planning by politicians as well as by academia. Norway has taken an important step in establishing a research based teacher education by investing in a national graduate school for teacher education, NAFOL.

NAFOL's conceptual background

Norway is a country with about 5 million people. The country has 32 teacher education institutions in university colleges and universities. Many of the university colleges are small. In 2004 a controversial report (Forskingsrådet, 2004) was published, where educational research was evaluated with a rather harsh critique. The writers of the report challenged the institutions to strengthen efforts within five areas: (1) research leadership and organization, (2) internationalisation, (3) thematic efforts and prioritization, (4) recruitment, and (5) national coordination and cooperation. A parliamentary White paper, "The Wish to research" [Vilje til Forskning] (St.meld. 20, 2004-2005), suggested that national graduate schools should be created. The task of the graduate schools was planned to be to contribute to strengthening quality in doctoral education. In an evaluation from 2006 (Hansén, 2006) on behalf of the Norwegian NOKUT (an organization which approves of research qualities in Norwegian teacher educations), teacher education for primary and secondary level was also criticised rather heavily.

In a dialogue seminar in 2012, organized by the Norwegian Research Council, the consequences of the strategies implemented were evaluated. Hansén (2012) concluded in his evaluation that the measures taken have had a great impact: the research culture in the institutions has been strengthened. Doctoral education has developed, and there is an overall increase in research publications. Also innovation, more visibility, more recruitment and strengthened professional self-confidence can be noticed among the institutions in educational research. In the current article we will discuss how a national graduate school for teacher education was designed, its conceptual background, and its implementation.

In a White paper from 2009 (St.meld. nr. 11, 2008–2009, p. 26) "The Teacher, the Role and Education" [Læreren – Rollen og utdanningen] the parliament announced that national graduate schools would be established in order to strengthen the teacher educators' competence in research and development. After one year of planning, NAFOL was launched in 2010 as a national graduate school for teacher education.

Establishing process

The aim of this section is to discuss the construction of an innovative concept for a Norwegian national graduate school for teacher education research (NAFOL). The graduate school is part of Norwegian educational research policy to qualify and thoroughly transform rather practice based teacher education into research based teacher education on a national level in Norway. This implies accepting more than 80 research students during the period 2010-2013 to participate in a national graduate school, in four cohorts. Each cohort can participate for four years in NAFOL during the years 2010-2016. The rationale for this project was the decision to have a research based teacher education, and the criticism of the quality of educational research mentioned earlier in this article. Furthermore, there was a wish to promote a sense of professional identity within teacher education research. The idea of a knowledge society's need for competence in different areas fuelled the idea of supporting teacher education research in different ways. Educational research is thus also extensively funded through two major research programs "Education 2020" [Utdanning 2020] and "PRAKUT" [Practice-based Educational Research]. NAFOL is part of the PRAKUT program.

What does NAFOL offer?

A battery of questions has guided the formation of the profile of the graduate school: What are the main features of an innovative graduate school focused on teacher education research? How is practice and theory in dialogue within the concept of the graduate school? What are the tools needed in order to mediate, scaffold and support an innovative educational research space for a diverse group of fresh researchers?

The graduate school NAFOL was launched in January 2010 with support from the Norwegian Research Council, and is steered by a consortium of 24 teacher education institutions (7 universities and 17 university colleges). They suggest about 20 students every year (over four years, and for a maximum period of 4 years) should gain entrance to the graduate school's activities (seminars, conferences, international seminars, and relevant PhD courses). An important prerequisite for being accepted is the relevance of the individual research topic for teacher education research. The research fellow salary is paid by the university or the college the student comes from, and the research fellow also applies to be included in a PhD program. Participation in the graduate school is an added value. With three cohorts

of students accepted, NAFOL now has 67 doctoral students in the program. In January 2013 the fourth and last cohort of about 20 PhD-students will be included in the graduate school. In this last cohort there are 38 applicants.

NAFOL activities are also offered for teacher educators who wish to qualify themselves without following a PhD-program. This alternative is based on a broader qualification, called “førstelektor”. In NAFOL this group can participate in PhD courses supported by NAFOL, and those who have qualified present articles in the process and get responses from qualified researchers. NAFOL also offers master degree supervision courses, and seminars for PhD supervisors in NAFOL. A bi-annual conference is arranged with a special focus on a certain theme, with PhD students invited to present research in progress.

In the graduate school the students have a thematic attachment to one of two main themes in the graduate school:

Theme 1 is “The teacher’s societal mandate, understanding of the profession, and development of the profession”

Theme 2 is “Didactics of subjects and of vocations”. The concept didactics is interpreted in the Nordic way as “curriculum and instruction”.

The structuring of the content of the graduate school challenges the notion of both theory and practice based research into teacher education. The effort is to use reflection codes from theory as well as from practice. Thus, using a concept borrowed from Niklas Luhmann (2000), an overlapping zone is formed, where the participants in the graduate school might become border crossers. The doctoral students are expected to communicate within both reflection codes, and to develop new reflection codes (cf. also Rasmussen, Kruse & Holm, 2007). Forms of knowledge (Gustavsson, 2000; Kemmis & Smith, 2007; Kvernbekk, 2001) are negotiated within this border zone. The graduate school can thus be considered as a construction of an educational research space (cf. Wahlström, 2010), a discursive space, negotiated and informed by Nordic and European trends in educational research (cf. Haug, 2010; Uljens, 2010) as well as by more global trends (cf. Apple, 2010) in the formation of education for the future (cf. Biesta, 2010; Dewey, 1910; Gardner, 2006).

During the four seminars arranged for a cohort during one year, some themes form integrated module based PhD courses, such as academic writing, research communication, theory of the profession for teacher educators, subject didactics as a research field, and the pedagogy of kindergarten education. Outside the seminars NAFOL supports PhD courses in different methods, in the theory of science and other relevant subject themes.

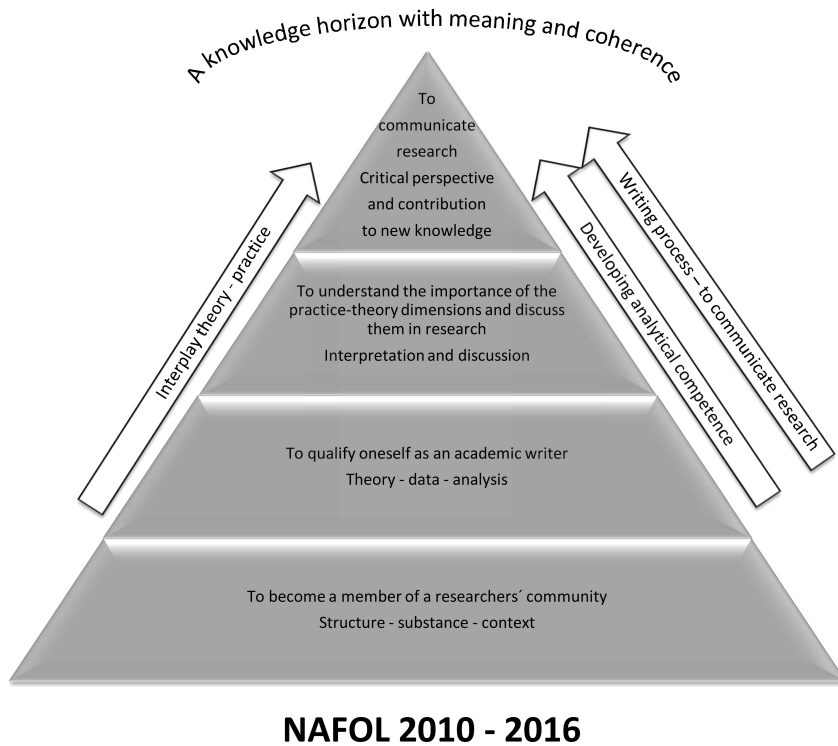


Figure 1. The structure of NAFOL's content for a four year period.

The structure for four years (Figure 1) is formed in a dynamic way, with invited lecturers and researchers for the themes explored in that specific seminar. A visiting professor contributes for a year or so in the graduate school. The leadership is well organised and administrative support is sufficient. Every cohort of students has a special coordinator, a professor organizing several workshops during the seminars of the graduate school. The basic principle is to scaffold the PhD students' progression in the research process by introductions to each phase intertwined with workshops, research communication and dialogues. The chosen structure shown in figure 1 is divided into four phases covering the four years: (1) To gain entrance into a research community (structure, substance, context), (2) to educate good researchers (theory, empirical data, analysis), (3) to understand the importance of research based knowledge regarding the practice-

theory dimension (interpretation and discussion) and (4) to communicate research (critical perspectives and contribution to new knowledge). Throughout the seminars analytical skills are trained and challenged.

Some students are invited to receive master class supervision on parts of their thesis in progress. In a master class other students can be the audience in the supervision session. In a process seminar, which a student requests, a researcher with expertise in the area of the research studied has read the manuscript, and asks challenging questions to the student, and also comments on the text. NAFOL also to some extent has cooperation with another national educational graduate school, NATED. The PhD students from one graduate school can participate in occasions arranged by the other. The bi-annual NAFOL conference is such a meeting place. At the conference innovations in research communication are planned and tried out, like poster presentations accompanied by poster mingle sessions (see also Østern & Strømme in this anthology).

During the years in the graduate school seminars with international cooperation are arranged. So far seminars have been arranged or are planned in Finland, Sweden, Denmark, Iceland, Holland and Germany. Internationalisation is strengthened through financial support for NAFOL students for periods as visiting researchers at a university abroad, a university with a certain expertise in a relevant teacher education field.

The dynamic innovative quality of the graduate school is contributed to by the lively interaction between the PhD students and organizers of the graduate school program, the continuous evaluation of each action taken, and the invitation to contribute to maintaining the NAFOL web page (www.nafol.net) updated by research blogs, conference blogs, letters from PhD students abroad, presentation of the NAFOL student of the week with summaries of the research project, and the presentations of visiting professors, and of supervisors of NAFOL students. A NAFOL Year Book contributes to the knowledge base shaped through NAFOL.

Another feature which is considered innovative is the double aim of the research school to function both as a scaffold for the PhD process, and also to form a basis for future teacher educators with an identity as researchers. The dialogue between the two levels is strengthened through the network formed by the students. This aspect makes the graduate school valuable in such a way that the meeting points in the graduate school are distinct values for the community of researchers.

Conclusion: The innovative aspects of NAFOL

The innovative aspects of the graduate school can be formulated in the following way:

It is national (not only local).

It recirculates and creates good ideas for doctoral education.

It is dynamic and sensitive to the needs of the students and of the society.

It is systematic.

It builds identity for becoming teacher educators, with a strong practice based research profile.

It builds upon cooperation both nationally and internationally.

The commitment of the PhD students to their network of teacher educators is a strength of the graduate school.

This articulation of the concept of a graduate school actively crossing the borders between different reflection codes thus represents an innovation in teacher education research.

The impact of the graduate school will be evaluated after four years (in 2014), and one important factor in this is how many students will have completed their PhD. Normally a research fellow at a teacher education institution has 25% work load and 75% for research during a period of four years. With the launching of a new teacher education in Norway for grades 1-7, 5-10 and 8-13 from autumn 2013, there will be a need for the competence of teacher educators with a PhD. In the discussion the suggestion to make Master's degree level the basic level for all teachers is prominent, and the question is more when than if this will be a reality. This Master's degree level has been the basis for Finnish teacher education for more than 30 years (cf. Jakku-Sihvonen & Niemi, 2006). On the other hand, the English concept Teach first! (2012) has also spread to Norway, and groups of academics without teacher education go into school as teachers with a minimum of theoretical background or research competence connected to the teaching profession.

Thoughts for the future

It is a challenge and privilege to be part of this innovative endeavour, touching the future. As a conclusion regarding the concept research based and its implementation in a national graduate school, we suggest some thoughts for the future.

The Norwegian PhD could be opened up in three directions in becoming qualified as a researcher. The (1) “førstelektor”- path could be designed with a strong focus on practice based research, (2) the arts PhD program could be included as an artistic path with a PhD as the final aim, and (3) the existing scientific PhD can stay in place. In a PhD. with professional focus these three directions in competence as a researcher are all needed.

Teacher education needs to allow for teacher educators with different primary expertise and provide for opportunities to strengthen their secondary expertise.

Research in teacher education should be varied, however, with strong focus on practice oriented research.

There must be a strong claim for quality in teacher education research, whether it is quantitative, qualitative or mixed methods research. The notion of quality needs to be problematized in discussions. The border crossing mentioned earlier in our article will consist of finding reflection codes which can guide practice.

Reflective practice is not necessary research unless it meets certain conditions such as being systematic, using previous research and producing some form for publication of the research.

The academic genres are continuously being challenged, because frozen genres do not suit well to the dynamic challenges given to research: to contributing with new knowledge about central issues in education. In a graduate school innovative themes can be analysed, discussed, criticized and published.

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