

Does Teacher Education Matter? Newly Graduated Teachers' Evaluations of Teacher Education in Sweden

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ABSTRACT

What do newly graduated teachers think about the value of their own teacher preparation? This study reports the findings of a national questionnaire administered to almost 10,000 student teachers in Sweden who in the 2007-08 academic year were conferred with a teacher degree.

Teacher education programmes in Sweden were subject to national evaluations in 2005 and 2008. Substantial criticism was voiced against programmes and the public debate was loud. In relation to those evaluations and the following debates, the national association for deans responsible for teacher education programmes sparked an internal discussion on quality, an initiative that resulted in launching this questionnaire as a collaborative project.

The questionnaire asked for the opinions of these newly graduated teachers by including questions in four areas, with each evaluating a different aspect of the teacher profession concerning how well they had been prepared for: 1) direct teaching/instruction; 2) the wider work of a teacher; 3) development work; and 4) outreach and collaboration.

According to these newly graduated teachers, they appear to have been best prepared for their entry to working life when it comes to direct teaching/instruction. The other three areas have a smaller proportion of satisfied respondents. It was also found that, despite decades of reforms aimed at merging the two teacher education traditions (the academic tradition and the seminar tradition), significant differences still remain concerning how subject teachers (teachers for secondary school) and class teachers (teachers for pre- and primary school) experience and evaluate their teacher preparation. The results are analysed in relation to the general debate on learning in higher education and the more specific discussion on the value of teacher preparation. They are also discussed in relation to programme design and whether particular areas of study should mainly be located in either initial (pre-service) teacher education or programmes for professional development.

INTRODUCTION

Education has been key to the development of modern society. The strong belief in education as a powerful tool for change has placed education high on national agendas. Uncertainties regarding the future have been met with a stronger emphasis on knowledge and learning and the acquisition of skills and competencies together with the more general notion of *bildung* have been central points of national policies as well as individual strategies. Debates on educational quality and outcome have consequently followed the growth of the educational sector. As learning in higher education is viewed as a core issue, from time to time questions have been raised about the impact of higher education studies on students' learning and on the capacity of programmes to prepare them for working life. Accountability mechanisms and inspections have been put in place as a means of ensuring quality. Even more important for the sector are the internal voices in higher education posing critical questions on student learning and to what extent the programmes impact graduates' professional lives.

In *Academically Adrift, Limited Learning on College Campuses*, Arum and Roksa indicate a concern for learning in higher education: “gains in student performance are disturbingly low; a pattern of limited learning is prevalent on contemporary college campuses” (Arum & Roksa, 2011, p. 30). In *Our Underachieving Colleges, A Candid Look at How Much Students Learn and Why They Should Be Learning More*, Bok expresses low prospects of turning colleges into “effective learning organizations” (Bok, 2006, p. 323). Bok draws on Pascarella & Terenzini’s study, *How College Affects Students: Findings and Insights from Twenty Years of Research*. With some reservations, they claim that “a reasonably consistent set of cognitive, attitudinal, value, and, psycho-social changes have occurred among college students over the last four or five decades. Students learn to think in more abstract, critical, complex, and reflective ways; there is a general liberalization of values and attitudes combined with an increase in cultural and artistic interest and activities; progress is made towards the development of personal identities and more positive self-concepts, and there is an expansion and extension of interpersonal horizons, intellectual interests, individual autonomy, and general psychological maturity and well-being”. Their reservation relates to the uncertainty regarding whether it is the participation in study programmes that causes change, or if it is to be understood as an effect of “the process of maturation or simply growing older” (Pascarella & Terenzini, 1991, pp. 563-65).

Teacher education holds a unique place in educational systems and its capacities are perceived to be decisive for educational outcomes. As with higher education in general, doubts have been raised as to whether or not and, if so, how teacher preparation impacts student teachers and, in the long run, student learning in schools.¹ The OECD report *Teachers Matter. Attracting, Developing and Retaining Effective Teachers* highlighted that well-educated teachers are the most important asset for enhancing student learning (OECD 2005). In the same year, Darling-Hammond et al. (2005, p. 20) addressed the debate on the relationship between teacher education and teacher effectiveness. They found that teacher effectiveness was related to the level of teacher preparation.

The above examples of the current debate and research outline the contours of the diverse context for the research presented here. The question posed in this article is about the capacity of Swedish teacher education to promote sufficient student learning. Debates on teacher preparation and the value of a teacher degree in relation to teacher work are perennial (Cochran-Smith et al., 2008). The national debate in Sweden on the quality of teacher education follows similar patterns to the international debate, and the concerns regarding educational outcomes have been channelled into a wide array of inspections and evaluations together with increased accountability. Still, there is much to do to establish essential knowledge on educational outcomes.

Teacher education is an endeavour that encompasses knowledge, learning, personal advancement etc., which is why it is striking that there are no records focussing on that. In Sweden, there is a divide between recurrent statements on the importance of the teaching profession and initiated activities to map the outcome of teacher education. It is vital that the teacher education community researches core issues to promote quality and to expand the knowledge base concerning teacher preparation.

It is the ambition here to contribute to the research underpinning the debate on how newly graduated teachers evaluate their teacher education experience. The research presented here draws upon a national collaboration among Swedish providers of teacher education and it bridges internal quality assurance strategies and research. The survey was an outcome of a shared concern among the Swedish deans responsible for teacher education programmes, which led to the administering of a joint survey to former students, asking them to evaluate the effectiveness of their studies in teacher education for their work as teachers. The aim of the collaboration was to create a more solid foundation for further discussions within the community on how to advance quality. It also aimed to foster collegial inquiry and promote a quality culture. The particular objective of this article is, from the perspective of graduates, to describe to what extent teacher education promotes the development of core competencies.

Teacher Education in Sweden 2001–2011

Swedish teacher education has been reformed repeatedly. In the autumn of 2001 a reformed programme structure was launched, while another reform came as late as the autumn of 2011. The model introduced in 2001 differed substantially from the earlier system and the model launched in autumn 2011 brought another substantial shift. The 2001 model is briefly presented here as this survey relates to the graduates of that programme structure. The structure introduced in 2001 built on a single teacher degree for all graduates but with different lengths of studies and profiles. In terms of ECTS, the studies varied between 180 and 330 ECTS credits.

Students created their degree profile by making individual choices of courses. The programme was structured in three areas: a general education area, an educational area and a specialised education area. Student teaching (30 ECTS credits) was integrated into the two first areas and educational aspects were to be integrated in the educational area (which mainly equalled specific subject studies). A stronger emphasis was placed on the programme being research-based, and a degree thesis became mandatory. In short, the aim was to provide more practically useful as well as more theoretically advanced teacher education (cf. Åstrand, 2006).

METHODS AND DATA COLLECTION

The idea that some general competencies are essential for a teacher's professional practice is the point of departure for this inquiry. As indicated above, the data collection is an outcome of a collective initiative by institutions in Sweden, which provide teacher education. The background to this survey was a shared desire by those institutions to acquire a better understanding of how teacher education affects students. The more precise focus concerned how student teachers value their professional preparation once established as active teachers. Given these ambitions, the choice of method ended in launching a nationwide questionnaire for all former students in a one-year graduation cohort. The aim included a strategy to grant each institution opportunities for independent comparisons with any other institution, which is why a nationwide questionnaire was preferred.

The questionnaire follows the shift from “what teachers should study” to “what teachers should learn and be able to do” (cf. Darling Hammond & Bransford, 2005). The design of the questionnaire included four sections, asking newly graduated teachers to evaluate the value of four areas of their teacher education. Those areas were:

- direct teaching/instruction (11 questions)²;
- the wider work of a teacher (11 questions)³;
- development work (8 questions)⁴; and
- outreach and collaboration (5 questions)⁵.

In the information given to the respondents and in the questionnaire, the term “teacher” was used for all graduates. It was considered important that pre-school teachers and leisure-time pedagogues were also included. In order to clarify that it was not the student being assessed, all evaluative assertions carried a clarifying preamble (*My teacher education means that I have...*). The respondents were asked to state their level of agreement in relation to a Likert scale (Strongly agree, Agree to a large extent, Partly agree, Agree to a small extent, Strongly disagree). Some areas of teacher competence are naturally related to more than one of the four areas investigated which is why some of the assertions set out for evaluation can be understood as variations of one another as will be seen later.

In the end some of the assertions formulated included more than one aspect of teacher competencies. One may question whether this was appropriate. It was caused partly by the limited space and the ambition to cover many areas, although the choice to do so was also motivated by the fact that competencies asked for are usually intertwined in both teacher preparation and in teachers’ executive roles.

To secure information on the respondent graduates’ development as teachers, eight direct questions were also asked about this. This kind of information is largely available in other databases, but asking them in this questionnaire allowed better opportunities for an analysis of bias.

Statistics Sweden (SCB) was contracted for the fieldwork. The questionnaire was launched in spring 2010 and sent to all teacher education graduates who had been awarded a teaching degree in the 2007-08 academic year. It was sent by ordinary post and three reminders were also sent during the period (April to June) before closing. The respondents were guaranteed anonymity. In cases of particularly small sub-cohorts (for example, graduates with an unusual profile who had studied at one particular small institution), which may have risked protecting the respondents’ anonymity, SCB hid the results in the statistical raw material provided to each institution. SCB was not asked to deliver a final report. Instead, it had to provide easily accessible statistical raw material that could be analysed at each institution in accordance with local strategies. All partners had equal access to the full body of statistics, which was delivered in Excel file format, giving opportunities for detailed analyses and comparisons (they were disseminated to institutions in early autumn 2010 and have since been discussed at the national level).

The study reported here is exhaustive in the sense that the questionnaire was sent to all (almost 10,000) graduates in the cohort, not a sample. The response rate was 52.5%.⁶ Graduates with a primary school teaching degree had a lower response rate (47.6%) compared with graduates prepared for secondary school (51.4% for lower secondary and 56% for upper secondary). The proportion of respondents among pre-school teachers was higher than among primary teachers (53.2%). Graduates profiled for teaching vocational subjects had the highest response rate (65.5%) and subjects like Sport & Health and Social Studies/Civics had the lowest response rates (48.9% and 49.1%).

Women constitute the majority of student teachers in Sweden. Even though women generally respond to a greater extent, the male/female response rates were roughly similar (females 53.4%, males 49.6%).⁷ It should be noted that the proportion of female students is largest in teacher preparation profiling for pre- and primary schools and that males have a substantially higher drop-out rate.⁸ A working assumption in this report is that those observations do not indicate any typical bias. The response rate varied among institutions but not in any linear/systematic way (it varied among the largest providers from 47.1% to 55.4% and among the smaller ones from 43.7% to 58.3%).

The survey does not indicate which parts (meaning particular courses/areas of study) of the programmes have had any particular impact. Such studies are essential but the design of this study was also influenced by ambitions to enable the mapping of change over time (by repeated use of the questionnaire) and as the programme structure changes quite often it seemed unwise to align it very closely to the structures (cf. Loewenberg Ball & Forzani, 2010 and Schmidt et al., 2011).

The fact that on average nearly one-half of the students did not respond at all is a deficiency; conclusions must be drawn with caution. However, opinions in this first full-scale survey provide unique opportunities to understand how the former student teachers value their teacher preparation. The views of graduates, in this case, namely opinions expressed two years after graduation, are an important voice. For a fuller picture, other views and perspectives need to be added.

NEWLY GRADUATED TEACHERS' VIEWS ON THEIR TEACHER PREPARATION

The first period at work for a newly graduated teacher is demanding. It has been noted that they have two tasks during this period – to teach and to learn to teach (Feiman-Nemser 2001, p. 1026). The following findings should be interpreted from the perspective that those graduates were more or less in that situation when they responded to the questionnaire but what is most important for this survey is that they had sufficient professional experience to make their opinions well grounded. Put differently, according to the figures presented, two years after graduation seems to be a suitable time for them to evaluate their teacher preparation.

Teacher students have generally high employment figures after graduation. The graduates in this survey report that nearly 9 out of 10 are working in a school and only 2% state they

are unemployed. Nearly 8 out of 10 have permanent positions and more than 7 out of 10 had been in their job for more than 12 months (75% were working full time). 64% were working in an area for which their degree was relevant and 29% partly relevant (7% report they are active in an area for which they not were trained).

Preparation for teaching/instruction

This first part of the questionnaire presented statements concerning teaching in quite a narrow sense, not including all teacher duties. The questionnaire clarified that this part focused on classroom work, teaching in other environments, assessment and planning, alone and with others. The respondents were asked to evaluate the importance of their education for their knowledge in and about the subjects, learning and the activities their training was aimed at (Q1a) and their abilities to:

- plan and carry out teaching and related duties associated with teaching (Q1b);
- independently identify and formulate problems in relation to teaching (Q1c);
- gather and interpret information, integrate knowledge, critically interpret and evaluate knowledge regarding teaching (Q1d);
- develop new knowledge and integrate new findings into their teaching (Q1e);
- make assessments of student work (Q1f);
- make scientific, ethical and socially-based assessments (Q1g);
- conduct a pedagogical analysis and evaluation in support of their teaching (Q1h);
- prevent and resolve conflicts (Q1i);
- contextualise teaching within global and societal perspectives (Q1j); and
- motivate rights, combat discrimination and anchor democratic values (Q1k).

The average rate of content was identified by adding the figures for those who responded that they strongly agreed or agreed to a large extent for each statement in the section and, on that basis, an average result for the section, in this case 60.2%, was established. This figure may be interpreted as a fairly positive outcome indicating that a majority of the former students had a positive appreciation of their teacher preparation in this aspect.⁹ However, when analysed in relation to each question the picture is quite diverse:

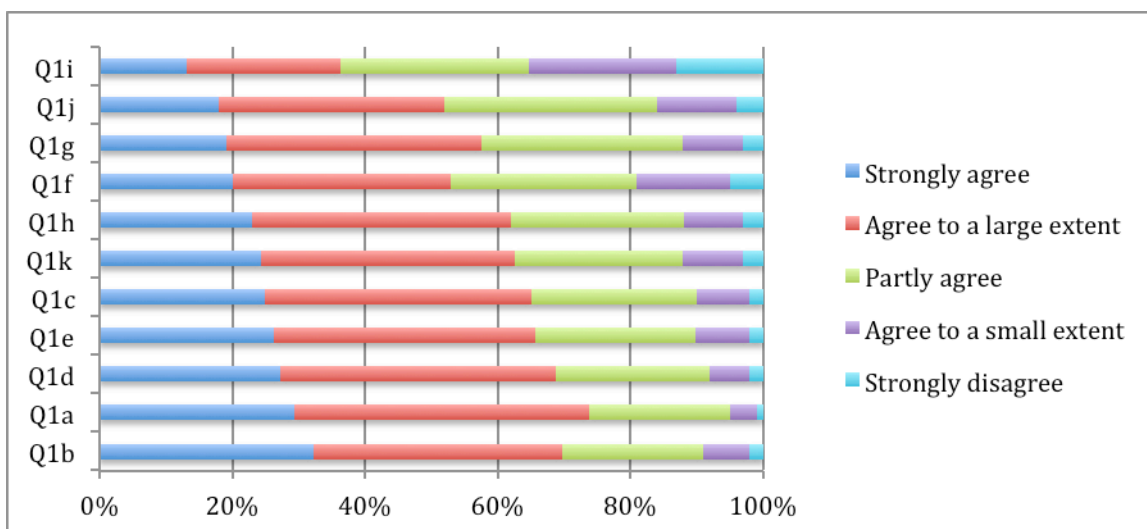


Figure 1: Newly graduated teachers' views of their teacher preparation regarding direct teaching/instruction (average, %)

The theme focused on here is traditionally often understood as the core area of teacher work and other areas such as competencies to collaborate with the surrounding society are tasks added later in history as responsibilities for teachers. It is obvious that the programmes have a serious weakness in their capacity to educate students regarding competencies in conflict management and conflict resolution (Q1i). On the other end of the scale, the responses indicate a relatively strong capacity to contribute to student teachers' knowledge of subjects, learning and the areas of activity for which the student was prepared together with capacities to plan and conduct teaching and instruction (Q1a and Q1b).¹⁰ Close to the same level are the opinions on teacher education's capacity to promote the development of abilities to gather and interpret information, integrate knowledge, critically interpret and evaluate knowledge regarding teaching (Q1c).

Preparation for the wider work of a teacher in school

The second theme concerned broader teacher work in school. This area refers to aspects of work as a teacher outside teaching and instruction; for example, meetings with individuals, follow up meetings with students, work on student care, meeting with parents, planning etc. This section focused on the importance of their training for developing knowledge regarding the conditions of the activities the training was aimed at (Q2a) and knowledge of wider teacher work in schools such as, for example, managing contact with parents, student welfare (Q2b). The survey also concerned the programme's capacity to promote following abilities to:

- independently identify and formulate problems in wider teacher work in school (Q2c);
- gather, interpret and evaluate information relevant to their daily work in school (Q2d);
- develop new knowledge and integrate it in support of their work at school (Q2e);
- apply scientific methods/scientific approach to their work at school (Q2f);
- plan and implement wider teacher work at school (Q2g);

- prepare for collaboration within the school (Q2h);
- prevent and manage/resolve conflict in teacher teams and other collaborative situations (Q2i);
- understand the wider work in schools based on the overall context, such as the goals of the school or international conventions (Q2j); and
- justify rights, combat discrimination and anchor democratic values in the wider teacher work at schools (Q2k).

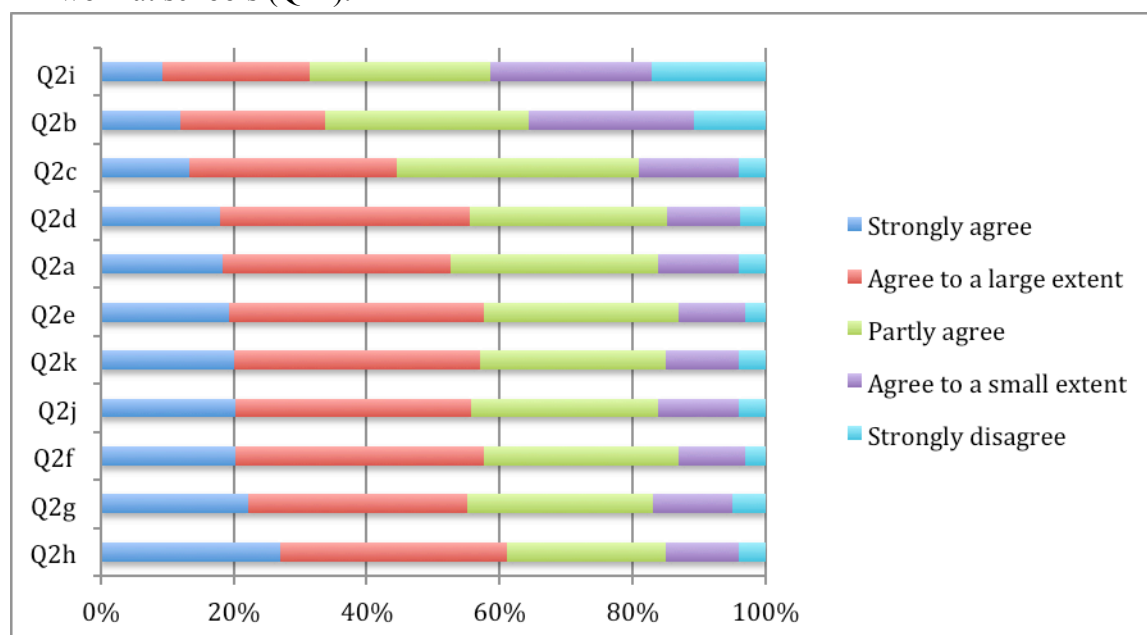


Figure 2: Newly graduated teachers' views of their teacher preparation regarding wider teacher work at school (average, %)

One of the strengths appears to be the capacity to prepare for collaboration within the school (Q2h) with somewhat over 60% of contented respondents, although close behind there are seven areas of competencies with a share above 50%. The first of these is the ability to apply scientific methods and a scientific approach (Q2f). On the same level of student satisfaction we find preparation to be able to develop new knowledge and integrate it in support of the work at school (Q2e) as well as the ability to anchor democratic values and justify rights in the wider teacher work at schools (Q2k). The period of study appears also to have had an impact on promoting the students' abilities to understand the wider work in schools in an overall context such as the goals of the school or international conventions (Q2j). Also in this section we find the more practical, fundamental and essential competencies such as being able to plan and conduct activities outside direct teaching and instruction (Q2g).

As presented above, graduates voiced criticism on how the programmes prepare for conflict management and resolution in teaching/instruction situations. This concern is also apparent when it comes to the wider teacher work (Q2j) together with how the programmes

promoted knowledge of the wider teacher work in schools such as managing contact with parents, student welfare etc. (Q2b).

Preparation for development work

Teachers' abilities to contribute to the advancement of schools by engaging in development work have become an increasingly emphasised area of teacher competence in recent decades. The survey therefore asked former students about how they valued their teacher education in this respect. Development work is understood to mean the development of school activities as well as personal development, for example continuous professional development, research, school development in general etc. The statements the teachers had to consider concerned the importance of teacher education for their ability to:

- independently identify and formulate the developmental needs of the school (Q3a);
- independently identify and formulate their own developmental needs (Q3b);
- apply scientific methodology and a scientific approach to development work (Q3c);
- use knowledge to develop the school (Q3d);
- build new knowledge of relevance to the development of the school (Q3e);
- plan and carry out development work based on ethical and societal grounds (Q3f);
- develop the school based on a comprehensive context, even a complex one (Q3g); and
- work on development projects (Q3h).

The promotion of this area of competencies also appears to be generally weaker than the preparation for direct teaching and instruction (52.1%). The level of positive response is, however, slightly better than that regarding the wider teacher work in schools.

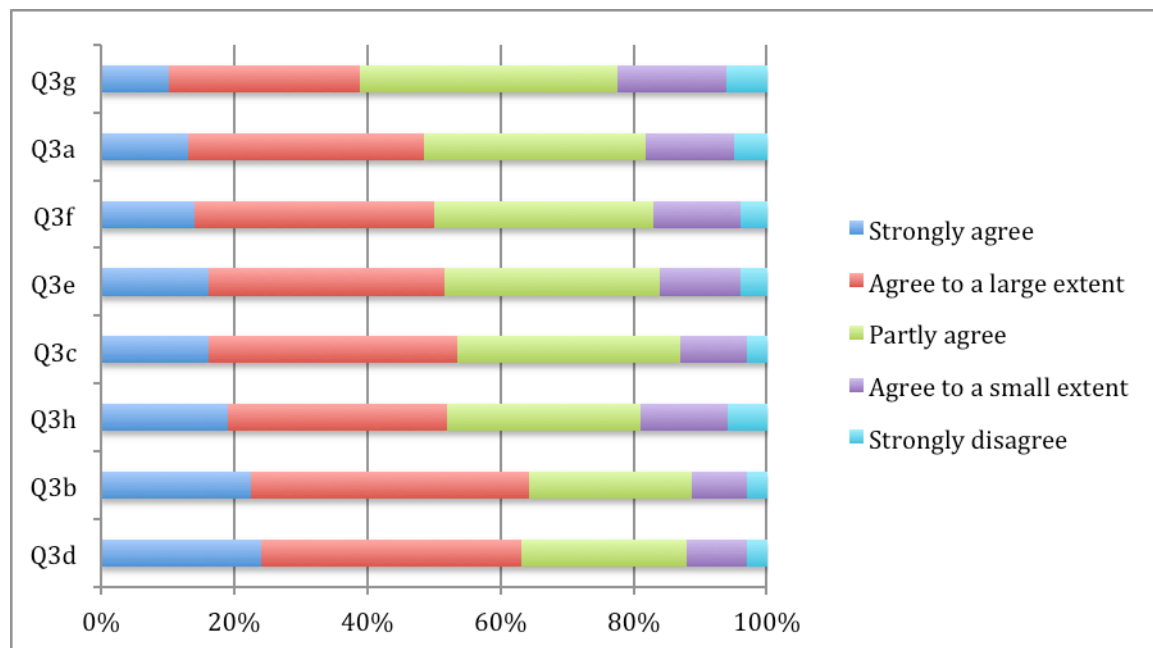


Figure 3: Newly graduated teachers' views of their teacher preparation regarding development work (average, %)

From a career-long perspective, an essential competence for a teacher is to be able to identify one's own developmental needs and to use new knowledge for advancement. Over 60% of the newly graduated teachers seem to be fairly satisfied with their teacher preparation in this respect, which is also the highest result in this theme on readiness for developmental work. The second strongest area appears to be preparation for collaborative engagement in developmental projects to do that based on research and with the intention to build new knowledge to reinforce enhancement (above 50%). The weaker areas seem to be related to identification of the needs of schools and the planning of development work as well as the capacity to act within a wider context.

Comparing individual results with each other one has to reflect upon the questions as such. What is the relationship between the capacity to identify both a personal need for competence development together with developmental needs of schools and the capacity to act within a wider context? It is hard to avoid the conclusion that the low results may indicate that the alumni did not understand the question. A final observation concerns the significant difference between the perceived value of the programmes' capacity to sharpen the understanding of personal developmental needs compared to the capacity for a needs analysis regarding advancement of the school.

Preparation for outreach and collaboration

The teaching profession is fundamentally a profession involved in partnership. The teachers were asked in the questionnaire to consider five statements about the importance of their education in this perspective. Issues such as outreach and collaboration, partnerships with external actors/stakeholders and other activities with educational purposes (study visits, practicums etc.) were considered here. The statements the respondents were asked to reflect on included the importance of teacher education for their ability to:

- identify, establish and maintain contact with relevant stakeholders (Q4a);
- in the context of partnership interaction develop new knowledge (Q4b);
- plan and implement relevant activities (Q4c);
- collaborate within and outside school (Q4d); and
- cooperate based on external analysis and global contexts (Q4e).

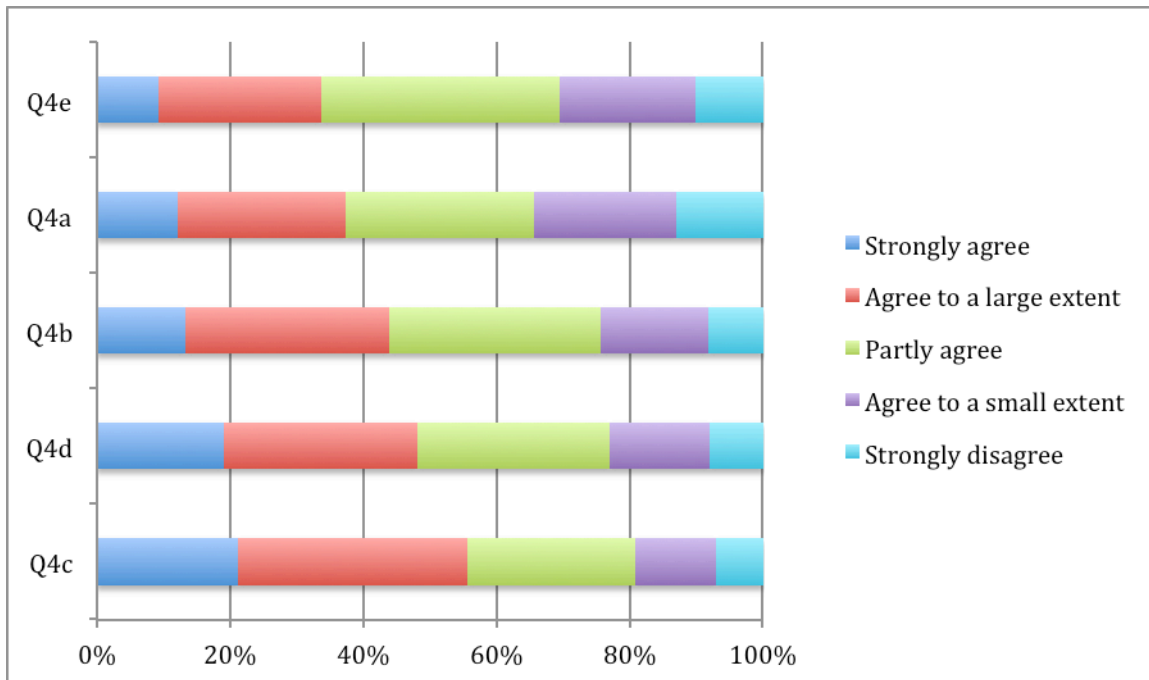


Figure 4: Newly graduated teachers' views of their preparation regarding outreach and collaboration (average, %)

The response in this area is not easy to interpret. On the one hand, 57% strongly agreed or agreed to a large extent with the assertion that their education contributed to their skills to plan and implement relevant activities within the area of outreach and collaboration (Q4c). On the other hand, only 47% agreed with the assertion that their education contributed to their abilities for collaborative work in and outside school (Q4d). In addition, the figures are even lower when it comes to their preparation regarding the ability to cooperate based on an external analysis integrating global perspectives, to identify relevant stakeholders and to interact towards the development of new knowledge (Q4e, Q4a and Q4b).

It is worth noting that the general statement in part 1 (Q1b), like Q4c in this section, received a similarly high percentage of support. Both issues were about the importance of the respondents' education in terms of their ability to plan and carry out particular activities. The following issues in both cases could be understood as subsets of this broader issue. It then becomes crucial to consider the information in these responses.

Could it be that those figures actually indicate that almost 60% of the newly graduated teachers believe that their teacher preparation more or less failed to prepare them for collaboration with the surrounding society? If so, this is particularly worrying in relation to how the teaching profession has evolved from solitary work to a team effort, and from being executed in schools more detached from society to schools more open to society in general.

DISCUSSION

Swedish teacher education has to be sensitive to the opinions of newly graduated teachers. Nonetheless, as providers of teacher education, educators must remain independent and in many ways autonomous and avoid reducing higher education to a service provider and students to mere customers (cf. Scott, 1999).

The above analysis presented figures on students' satisfaction with their teacher education by investigating their points of view two years after graduation. A dual perspective can be applied. On one hand, the results can be interpreted positively, showing that a majority of the students are content with their training in one way or another. On the other hand, it is possible to approach the results differently – with a profoundly critical perspective questioning whether it is acceptable that one-third or one-quarter of the former students indicated that they are unsatisfied with their teacher preparation.

What is an acceptable level of “strongly disagree”? What is desirable is also a question of what is not tolerable. It is a political and academic task to state what is tolerable and what is desirable. From a research perspective, it is important to note the absence or rare opportunities to compare the perceived impact with other current professional programmes and teacher education carried out earlier. It would be preferable to have opportunities to make comparisons with teacher preparation in other countries and regions. Such studies have been conducted but it appears as if the research designs involved are so different that the problems outweigh the benefits. However, it is possible to follow the change in teacher education in Sweden over time by reusing the questionnaire employed in this study. If that is done, the research could confirm the degree to which the outcome is moving in accordance with the aims.

In this study, the highest results were scored for the preparation of students for direct teaching and instruction while the following categories (the wider teacher work at school and development work) scored considerably lower, as did their competencies regarding outreach and collaboration.

Area	National average
Direct teaching/instruction	60.2
The wider teacher work at school	50.8
Development work	52.1
Outreach/Collaboration	43.2

Table 1: Newly graduated teachers' satisfaction with their teacher preparation in relation to four thematic areas (average, %)

The pattern of priorities in Swedish teacher education that emerges shows that it continues to follow a classic design with the traditional emphasis on and a concentration on preparation for teaching in classroom and with less of a focus on the wider teacher work at schools, development work and outreach and collaboration. This analysis is valid if one accepts the underlying assumption – that those results also mirror a priority of teaching within the programmes. Another perspective could be that it mirrors what is easier or more difficult to teach and/or for students to learn.

On top of the observation of divergences in the degree to which former students are content with their teacher education relative to different competencies, it is obvious that different teacher categories evaluate their education differently. Teacher education in Sweden has earlier been characterised by two different traditions, the tradition of teacher seminars and the university-based academic tradition. It has been a reform ambition since the 1970s to integrate these two but this survey indicates that they still have a parallel existence.

Area	Class teachers (average, %) ¹¹	Subject teachers (average, %) ¹²
Direct teaching/instruction	64.3	52.9
The wider teacher work at school	58.9	41.2
Development work	57.8	46.2
Outreach/Collaboration	49.4	33.6

Table 2: Newly graduated teachers' assertions per thematic area and teacher category. (Response rate for the alternatives "strongly agree" and "agrees to a large extent", average, %)

Preparation leading to teacher competence to apply scientific methodology and a scientific approach to development work only differs slightly between the class and subject teachers (57% compared to 52%), with more or less half of the students being critical of the programme. Preparation for abilities to develop new knowledge in relation to either development work or outreach/collaboration represents statements where the two categories of alumni have the biggest differences (3d: 73% versus 54% and 4b: 50% versus 34%). But these areas were not the only ones with a high degree of divergence.

The quite similar evaluation of the preparation regarding scientific methods and approach is somewhat surprising. It is a well-established notion that subject teachers by tradition have more profound training in scientific methods and a scientific approach (together with the fact that their teachers have a higher rate of educators with higher scientific qualifications). The outcome is challenging when viewed from this perspective and poses questions not only about the training as such but how competencies and knowledge are conceptualised and contextualised. Wubbels draws attention to the fact that important aspects of teaching are not always handled in teacher education in specific courses and labelled using ordinary language (Wubbels, 2011). Could it be the case that the teachers within the programme have failed to make this training relevant in the sense that the students did not understand that their training in this respect is also about the development of new knowledge? Could it be the case that here we have a situation similar to what maths teachers occasionally state – that students in school sometimes have no difficulty solving mathematical problems while playing outside school, mathematical processes they have serious problems with handling at school in a maths class?

As noted above, graduates with a profile for work as class teachers seem generally more content with their training than those profiled for subject teaching. While analysing this, one needs to bear in mind that class teacher preparation is shorter. Consequently, many class teachers started their studies in the spring semester of 2005 compared with subject teachers who could have already begun their studies in 2003. The importance of this is that the courses in class teacher preparation could have been revised to a greater degree than the

others as they had been in place for a longer period. We know many institutions initiated local revisions in 2004-05.

Another issue to be addressed concerns the assumptions underpinning this study, primarily that the newly graduated teachers are capable of distinguishing between what they in fact understand they themselves are competent to do and the value of their training for a respective competence. The use of results from course evaluations during pre-service programmes has strong limitations since the results can only indicate estimations of either what students believe to be the value of a course in the future or how well the course has met standards or other established aims/learning outcomes, not the experienced value. That experienced value is probably not static but slowly changing in relation to individual maturation into a professional identity as is argued in *A Typology of the Knowledge Demonstrated by Beginning Professionals*. This also includes processes of interrelatedness regarding professional and personal knowledge (Le Maistre & Paré, 2006). As times goes by and experience adds to experience, the clear notion of what happened in teacher preparation naturally fades away or is given a new role in relation to daily experiences as an active teacher. Accordingly, perhaps one should treat the results a little carefully but also evaluate them in the perspective of future research, as this appears to be as essential yet insufficiently researched.

The results of this survey not only ask questions about the quality of the programmes viewed from the perspective of former students. They also draw attention to how knowledge in teacher preparation is contextualised and whether or not it is appropriate that particular aspects remain located within initial teacher education (cf. Grossman, 2008).

The fact that only one-half of former students are content with how they were educated in assessment must be understood as a severe shortcoming, most likely hampering the learning possibilities among students in schools. A more striking result is the low evaluation regarding preparation in the area of conflict management in general. A closer look reveals that only 22% – 24% of newly graduated teachers destined for upper secondary school were content with this aspect (Q2i, Q1i). From a researchers' perspective, the issue appears to be: which factors can explain the gap between the different programmes in this respect and why are some competencies more difficult to impart than others? From an educational perspective, the results call for decisions on the redesign of future programmes. It must be taken into account that the most contented cohorts of newly graduated teachers only comprise a minority of students. This indicates that areas like this should, at least partly, be moved to professional development programmes. When Gabriel et al. asked exemplary teachers to comment on their own development, they stressed the importance of professional development programmes that “provided a systematic way to observe and interpret students' work and actions” (Gabriel et al., 2011).

The responses to questions 2f and 3c on scientific approach and methodology are challenging. Although those responses attracted some of the highest scores, the outcome must be noted as a kind of failure. The ability to apply a scientific approach in general to work in school is a professional responsibility that is largely understood as decisive for high quality teaching. It appears as if the training in this respect has been insufficient. This

calls for change since the understanding and use of a scientific approach is such a core part of teachers' professionalism.¹³

Teacher education struggles with overwhelmingly demanding tasks. First, it has to deal with the consequences of the fact that "teaching is an enormously difficult job that looks easy" (Labaree, 2004, p. 39). Second, teacher education has to strive in accordance with the exceptional goals for their students. They need to be equipped with competencies in relation to the new mission of schools, nicely outlined by Darling-Hammond as "to prepare students to work at jobs that do not yet exist, creating ideas and solutions for products and problems that have not yet been identified, using technologies that have not yet been invented" (Darling-Hammond, 2010, p. 2).

At the end of the questionnaire an overall evaluative statement was given to the graduates: Would you recommend any other person to pursue teacher education studies at the same higher education institution? 82% chose the response alternatives "definitely" or "most likely". So what is the graduates' point of view? A number of critical remarks are analysed above, on a range that seems to contradict this final statement. Most likely both are true in some sense. The graduates are deeply critical of some parts of their training but are, on average, quite satisfied when taking the whole of their teacher preparation into account. But we, as educators, cannot be satisfied until the figures regarding the particular areas highlighted above have improved.

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¹ In this article, teacher education and teacher preparation refer to initial, pre-service teacher education.

² Direct teaching/instruction (equivalent) refers to instructional work as a teacher within the classroom as well as other situations with a clear educational focus. It also entails assessment/grading, the planning of classes, individually or in teams (clarified in the folder).

³ Wider teacher work in school refers to aspects of work as a teacher outside of teaching and instruction, for example meetings with individuals, follow up meetings with students, work on student care, meeting with parents, planning etc. (clarified in the folder).

⁴ Development work refers to the development of school activities as well as personal development, for example continuous professional development, research, school development etc. (clarified in the folder).

⁵ Outreach and collaboration refers to, for example, partnerships with external partners/actors/stakeholder as recipients of students (study visits, practicums etc.) (clarified in the folder).

⁶ During the period, 9,928 people were awarded 10,020 degrees. 130 people had migrated or were excluded due to other circumstances. About 100 blank returns and messages stating that the prospective respondent did not want to participate were noted. There was a rate of 1% of non-responses to individual questions (*Technical Report*, SCB). 2008 was the final year for students with uncompleted older degrees (students admitted to the programme prior to the reform in 2001) to finalise their coursework which explains why there was an approximately 10% increase in awarded degrees, which most likely had a slight but general impact on the results.

⁷ Results are reported for the entire population enabling the SCB to compensate for known deviation patterns.

⁸ Among those students who started their teacher preparation in 2001-02, 40% of the males had not received a degree by 2009-10 compared with 20% of the females (SCB 2011, p. 31).

⁹ In the following presentation the chosen responses "Strongly agree" and "Agree to a large extent" will be brought together and treated as positive confirmation of the respective statement.

¹⁰ Strengths are to be understood here as what appear to be *the stronger part* according to the respondents and not a judgement of the programme as such.

¹¹ The class teacher cohort consists of newly graduated teachers with a degree profile for work in pre-school, primary school and as leisure-time pedagogues (a total of 2,428).

¹² The subject teacher cohort consists of newly graduated teachers with a degree profile for work in upper secondary school (a total of 1,666).

¹³ Cf., response to Q3e and the following comment: "In their work, teachers seem to rely more on personal experience rather than on scientific knowledge, and for this reason they may tend to favour familiar work practises instead of using scientific knowledge to develop new ones" (Tynjälä et al., 2006, p. 83).