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Teacher shortage in Sweden: time to take action?

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Teacher shortage in Sweden: time to take action?

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Abstract

In Sweden, the lack of teachers is a national challenge and a societal problem, and the difference between supply and demand for teacher students will increase until 2035. Today, only 7 out of 10 teachers in compulsory school have certification and the variation between schools and regions is great. The overall aim of this article is to explore and analyse the current state of teacher shortage in Sweden. Document analysis was used for reviewing, evaluating and analysing documents, and constructionist thematic analysis was adopted. The results show that there are many different, overlapping or similar factors behind the Swedish teacher shortage and are related to reforms, retention and recruitment. Several curriculum and teacher education reforms have changed and deteriorating work environments and have led to many dropouts for the profession. Low status and the constant poor picture the media portray of Swedish schools and teachers have a strong impact on Sweden's teacher shortage. Further, political reforms on communalization, decentralization, teacher certification and privatization of schools have changed the structural conditions. Therefore, we call for a change in the attitude towards the teaching profession. Thus, this article provides insights for teachers, teacher educators, policy makers and other stakeholders on the national and international level.

Keywords: school organizers, teacher education, teacher shortage, teacher supply, teachers

Introduction

One of the most important national problems at present in Sweden is the notable lack of teachers. In the Swedish context, numerous authorities have tried to approach the issue of teacher shortage from a long-term perspective. According to a number of different prognoses (Statistiska centralbyrån, 2017a; Skolverket, 2019a), the severe teacher shortage in Sweden will continue to grow and become even more severe by around 2020. This shortage will be most visible in pre- and elementary schools in Sweden, and new teachers will be needed especially for grades 7–9. The need for teachers will rise by another 30,000 full-time positions by 2029 (Skolverket, 2015). In 2020, the Swedish educational system, according to national statistics, lacked roughly 22,000 teachers, which is approximately 20% of the teacher workforce (Skolverket, 2019a). It is difficult to compare teacher supply and shortage in different countries, it appears that the neo-liberal policies which have been implemented in Sweden have resulted in similar situations in the US and UK (Toropova, Myrberg and Johansson, 2021). While the effects of marketization in education has been similar in the Nordic countries (Lundahl, 2016), the Swedish context is especially of interest. In Sweden, the economic, social and professional impact has been most intense (Toropova, Myrberg and Johansson, 2021).

Teacher shortage appears to be a challenge worldwide. The United Nations reports the need for some 69 million new teachers to reach the Agenda 2030 targets (UNESCO, 2016). Attracting and retaining new teachers is difficult in relation to both geographical areas and in certain subjects, being a common challenge of many developed countries (European Commission, 2018). Teacher shortage is seen in many European countries (Federičová, 2020; O'Doherty and Harford, 2018) as well as in the US (Garcia and Weiss, 2020; Sutcher et al., 2016). In England, shortages are expected to get worse as the result of an increasing number of students and aging population of teachers (Foster, 2019; See et al., 2020).

Despite the attempts of numerous authorities to approach the lack of educated teachers and the challenges involved from a long-term perspective and of universities to fill their teacher programmes, the difference between supply and demand for teacher students will increase until 2035, reaching between 18% and 38% (Statistiska centralbyrån, 2017b). The proportion of certified teachers varies strongly in different geographical areas, and the number of new teachers needs to increase by just over 50% (Skolverket, 2019b). This imbalance will continue to be a challenge for many years to come. In Sweden, the National Bureau of Statistics (Statistiska centralbyrån, 2015) has estimated that the differences between supply and demand for teacher students will increase until 2035 in all categories of teachers.

Teacher shortage is a challenge which must be taken seriously, as a shortage of teachers affects teaching in schools, students' learning and therefore the quality of education. Teacher workload, class size, unqualified teachers, the lack of teachers in certain subject areas and difficulties in filling positions are important issues to address. Overall, See and Morris (2021) call for the ensurance of an adequate supply of teachers to sustain for developing students' outcomes. Teacher competence is seen to be the most important factor for student learning (Hattie, 2009; Nordenbo et al., 2008). The teacher shortage will most likely have impact on students' learning and the quality of their education. While caution is necessary in interpreting results as improvement in student outcomes, the recent positive

change in trend in Sweden in Programme for International Student Assessment (PISA) may be affected. The supply of teachers and competent teachers will most likely be needed to maintain this trend. After low results in 2013, The National Agency for Education noted an improvement in PISA 2015, which continued in PISA 2018 (Skolverket, 2019c).

Aim and Research question

The aim of this article is to explore and analyse the serious situation in Sweden today regarding the country's teacher shortage. The research questions are 1) What is the current status in relation to teacher shortage in schools? 2) What are the main factors impacting on teacher recruitment and retention in Sweden?

Through document analysis, the study will deepen the understanding of the current status in relation to teacher shortage and the impacting factors both from an educational historical perspective and a societal perspective. First, a description of the shortage of teachers in 2021 will be given. Thereafter, we will present crucial reforms to understand the current system. Based on the documents we have reviewed, we give our analysis of the situation which has come about. Finally, our conclusions lead to implications for policy and school development.

Background

This section will provide a background about teacher shortage in the Swedish context. First a description of the current situation will be given. Thereafter other important aspects such student numbers, teacher mobility, dropouts in teacher education and teacher education are described. Finally, critical political reforms related to teacher shortage are presented.

The lack of certified teachers varies strongly between the different school levels (Skolverket, 2020). The actual number of reported deficiencies also varies slightly depending on which actor reports the deficiency as well as the calculation of these deficiencies. The most recent prognosis for teacher shortage in Sweden is for 2018-2033, reporting a lack of 45,000 preschool teachers and teachers in the year 2033 (Skolverket, 2019a). This can be put in relation to the expected number of new preschool teacher education graduates estimated to be 2,500 per year during the period 2010-2035 (Universitetsoch kanslersämbetet, UKÄ, 2021). The National Agency for Education (Skolverket, 2019a) defines this lack as not being enough new teachers to meet the needs for teaching in schools, and includes an increase in new teachers by 30% if this lack is to be fulfilled. In the prognosis from 2017, teacher shortage was reported to be 80,000 teachers (Skolverket, 2017). Other sources claim that there will be a shortage of almost 65,000 teachers in 2035 (Jaara Astrand, 2019, March 19). A new prognosis for teacher shortage is said to be a lower, with increasing student numbers, which also requires a strong increase in teachers. The National Agency of Education (Skolverket, 2019b) also reports that the number of teachers who stay in the profession has increased, as well as former teachers who are returning to the professions and a higher number of new teacher education graduates. In Sweden, there has been a shortage in teachers for many years, however the problem has worsened as of late and is expected to continue in the years to come.

Further, the proportion of certified teachers varies greatly in different areas or regions of the country, and the number of beginning teachers needs to increase by just over 50% (Skolverket, 2019a). In other words, there will be an imbalance for many years to come. The Swedish National Agency for Education (Skolverket, 2015) has also attempted to forecast the demand for teachers for the next 15 years ahead and has come to similar conclusions. Statistics from the National Agency for Education revealed that the lack of certified teachers has continued to increase. Now, 7 out of 10 teachers in compulsory school are certified, and the variation between schools is great. The largest need for certified teachers is found in compulsory schoolteachers, primary teachers in year 4-6 and vocational teachers. In some schools, only 4 out of 10 teachers are certified (Skolverket, 2019a) and the remaining teachers may lack education and certification.

The percentage of certified teachers in compulsory and upper secondary schools is illustrated in Table 1. For example, 70.1% of the teachers in compulsory school and 81.6% of the teachers in upper secondary school are certified. Overall, it can be noted that the percentage of certified teachers in at least one of their teaching subjects is lower in independent schools than in municipal schools. While there is a decreasing percentage for compulsory schools, a slight increase can be noted for municipal school organizers and a relatively stable percentage for independent school organizers. In this context, it is important to point out that the reform of teacher certification seems to have played a role in the teacher shortage.

Beyond reforms in teacher education and differences in teacher certification between municipal and independent schools playing a role in teacher shortage, another aspect is gender. Based on the number of teachers in Sweden with a monthly salary, gender distribution in the different teacher categories is illustrated in Table 1. Of interest to note is the gender distribution between the different teacher categories, in which the largest difference is seen in preschool where men are underrepresented, making up only 4% of this teacher category. Although somewhat more balanced in the category of upper secondary teachers, women are nevertheless overrepresented.

Table 1: number of teachers in Sweden (Sveriges kommuner och regioner, 2019)

Teacher category	Number with monthly salary	Number of men (in percent)	Number of women (in percent)
Preschool teachers	56,000	4%	96%
Compulsory school teachers	74, 600	21%	79%
Upper secondary school teachers	25, 800	44%	56%

Teacher shortage can also be seen from the perspective of employers. Every year, the National Bureau of Statistics asks some 7,200 employers about employee deficits in different employee groups. These employers can be organisations, corporations, state institutions and companies all of which seek employees within different branches of the labour market. Adermon and Laun (2018), for example, reported on mobility in the labour market and recruitment potential. Employers were asked to estimate

in which teacher programs they experienced that there was a lack of applicants. This lack of applicants may be an indicator of what competences are needed within the labour market (Statistiska centralbyrån, 2020b).

The largest deficit is noted in special needs teachers and special pedagogues. Another group of teachers with a large deficit is Educare teachers, which is a very specific teacher category in extended education in the Swedish context. Employers are also asked to estimate the lack of teachers regarding both newly educated teachers, as well as experienced teachers. When employers estimate the lack of newly educated teachers the highest lack of teachers is found in newly educated special needs teachers and special pedagogues at 82% and experienced teachers at 77%. For compulsory school Educare teachers the figures for newly educated and experienced teachers are 82% and 91%, respectively (Statistiska centralbyrån, 2020b).

As the teacher shortage continues to increase, the number of students in compulsory school continues to increase (Skolverket, 2020). Student numbers have increased in all school years, apart from in school year 2, where the student numbers have decreased. As student numbers increase over time, the number of teachers in different teacher categories will need to increase to meet these student groups (Bertilsson, 2014). With an increased number of students, more school buildings will also be needed. In the next few years, some 600 new preschools and 300 new schools will need to be built (Skolverket, 2020).

Statistical findings also indicate that the major problem for schools is not a shortage of teachers coming into the system. The real problem is that many of the newly graduated teacher students choose not to go into teaching at all or leave after just a few years (Statistiska centralbyrån, 2017).

For teacher education, another pressing issue is why there are so many dropouts in teacher education. Large drop-out rates are reported, with some 35 % of the students in a student cohort (Universitets-och kanslersämbetet, 2017). Some 54 % of those with the lowest grades opt out during the first year compared to 15 % of those with higher grades. In total, only 65 % of the students who start teacher education graduate. These defections are costly both for the individual who accumulates study debts and for the university who wastes resources on students who never graduate. The government estimates that there may be a shortage of 60,000 teachers in 2019.

Related to the shortage of teachers is also teacher mobility in the educational sector. Teacher mobility was reported to be 18% during 2019 and teachers who left the sector completely were some 6-7% of the teacher categories preschool, compulsory and upper secondary teachers (Statistiska centralbyrån, 2020a). For example, only some 71% of teachers still worked in school from 2010 to 2016, i.e. the same teachers five years later, which is an increase, compared to previous reports. Some 40% of teachers who said they would be interested in returning to the profession if the workload in relation to working hours was more reasonable, if there were stronger possibilities to influence the work situations and higher salaries. In total, some 20% of certified teachers working in other work sectors could possibility be enticed to go back to the teaching profession. Adermon and Laun report (2018) a large recruitment potential of educated teachers in other sectors. Based on national statistics, statistics on workplace,

branch and sector from labour market statistics and salary structure statistics, these researchers saw that 15-17 % of educated teachers and preschool teachers did not work in the educational sector.

Crucial political reforms

During the last fifty years, a large number of political reforms have been implemented (Åstrand, 2021). These restructures of school policy have affected both the labour market for teachers and the terms for teachers' professional activities. These restructures involved, among others, the decentralization of school in the light of New Public Management (NPM) and marketization (Fredriksson, 2010), the implementation of a goal and result governed school and the shift from national to municipal organisation and responsibility (Stenlås, 2009). The change of schools' teachers and municipalization has been called an educational policy system change, from a system embossed by central steering and public responsibility. In addition to these changes, the Swedish school system has also offered free school choice for students and their parents, as well as the widespread establishment of independent schools (Trumberg, 2011). In 2011, the Swedish government decided to establish a new teacher identification (ID), or certificate, in order to control the quality of the education and to revise the Educational Act. To be employed as a teacher the certificate is mandatory (2010:800). However, the lack of supply of certified teachers results in schools actively having to hire teachers who are not certified and sometimes not educated or qualified.

Overall, there has been an increase in the number of teacher student study places in higher education in Sweden. This increase in study places has resulted in a decrease in competitiveness related to a lower upper secondary grade level among students. From 1988-2003 the number of students in higher education increased from 188,000 till 398,000 students. Along with the increase in students, new educational alternatives came about and the number of higher education institutions increased. This resulted in more individuals coming into higher education, and thus the possibility to apply to higher education programs (Bertilsson, 2014). In 2016, some 16 000 students began studies in teacher education. This was 16% (25% at some higher education institutions) of all of the students who started to study this term (Bertilsson, 2018). The lower number of applications to teacher education starting from the 1990's has also involved lower merit values. For teacher education, merit values were lower than the average for higher education and much lower, for example, than medical school, in which entry qualifications have been relatively constant over time (Bertilsson, 2018). At the same time, teacher education programs are the largest professional education programs in higher education (Sveriges kommuner och regioner, 2018).

As a result of these overarching structural changes, a deprofessionalization of teachers has been reported (Stenlås, 2009). The number of teacher categories has increased, and student numbers in groups and classes has increased. Even the climate in schools has shifted to a harder climate, with unruly classrooms and increased social problems (Lärarnas Riksförbund, 2011; Skolverket, 2013; Lärarförbundet; 2013; Gidlund, 2018). Thus, the work environment for teachers has come to include heavy workloads, too many administrative tasks, low salaries, and pressure to become certified have resulted in the tendency for teachers to leave the profession. Neither has the implementation of certification for teachers had a positive effect on teacher status (Lindström, 2013). In summary, a

number of political reforms in the light of NMP, decentralization to municipal responsibility for schools, free school choice, independent schools, teacher certification, lower levels of students who apply to teacher education, deprofessionalization and high workloads have had strong impact on teacher shortage.

Theoretical framework

This study assumes that stakeholders such as researchers, policyholders, producers of national statistics and media interpret, reinterpret and use policies. Overall, these policies are used and deployed in different manners and to different extents. Therefore, the result can be said to be inspired by policy enactment theory (Ball et al., 2012). Moreover, these stakeholders' actions and perceptions are bound and shaped by their contexts, while simultaneously reconstructing the context through practice as a dialectic process. The enactment of policy comprises continual processes of interpretation and re-interpretation, for example in the case of educational policy. The processes in turn become activities which are transformed. They, for example may be conscious or unconscious, linear or cumulative, systematically planned or ad hoc, as well as intentional or unintentional. As stakeholders, there is a free space and capacity to interpret signals from policy holders and transform these processes, to participate and take power and to take action, and therefore become stakeholders in policy development. With a framing inspired by policy enactment theory, the stakeholders' relations between policy and practice may be seen in the light of how educational policy is interpreted, represented and recontextualised. Thus, this framing aspires to contribute to exploration and analysis of the serious situation regarding teacher shortage in Sweden at present.

Method

A framing inspired by policy enactment theory (Ball et al., 2012) themes regarding the serious situation of teacher shortage in Sweden have been identified. We have employed document analysis for identifying, collection, reviewing and evaluating documents for understanding and developing insights through constructionist thematic analysis (Braun and Clarke, 2009; 2012). The relevant documents were identified through academic databases (EBSCO, ERIC, Scopus and Google Scholar), in national statistics, media and in Google with the teacher terms teacher shortage (in Swedish, lärarbrist). The data materials comprised what researchers, policyholders, national statistics and media have reported on teacher shortage in Sweden. The empirical base was publications in media (5), scientific articles (6), dissertations (3) policy documents (2), reports (14), books (3) and statistics (8). Bryman (2008) discusses that authenticity issues in regard to mass-media outputs may be difficult, noting that the authorship may be unclear. Therefore media documents were restricted to, for example, debate articles by teacher labour unions. Other documents that were excluded were conference papers. The themes that ran across the included documents were identified inductively and were strongly linked to the data.

In line with Braun and Clarke (2006; 2012) statements about teacher shortage were first identified through an open reading to obtain an overall impression of the content of the documents. In the second step, meaning units representing themes were highlighted. Third, the various meaning units were coded using the themes. Fourth, the meaning units sorted in the themes were then separated into subthemes

depending on their characteristics. The analysis involved a constant moving back and forth throughout the entire data set, the coded extracts of data analysed, and the analysis of the data produced. The analysis was performed individually by the authors, and thereafter the analysis process was discussed within the research group to ensure the trustworthiness of the coding, themes and subthemes. The coded extract of the analyzed data materials, including the analysis and the themes in the document were compiled and documented in one document (cf. Krippendorff, 2019). The subthemes were then categorized in the following themes: *Comprehensive reforms, retention* and *recruitment*. The documents which have been analysed provide a picture of the current situation regarding the teacher shortage in Sweden from different perspectives of the stakeholders involved as a base for metanalysis.

Findings

In the document analysis of the policy documents, steering documents, reports, research publications and statistics the content analysis resulted in several themes. These themes can be seen to have affected the current and future teacher shortage in Sweden and are presented in the following themes: *Comprehensive reforms, retention* and *recruitment*.

Comprehensive reforms

In this theme, three sub-themes emerged: *Political reforms, curriculum reforms* and *reforms in teacher education*. The Swedish school system has changed largely since the 1990s with comprehensive political and structural reforms. What was previously a centralised school system has become a decentralised school, which is organized by the municipalities. In this shift towards the decentralisation of schools, many municipalities were not prepared to take on this task. Grannäs and Frelin (2020) report that: "According to Swedish National Agency for Education, even 20 years later, some municipalities are failing to govern schools in accordance with the state mandated directive" (p.4). The effects of decentralization continue to have impact at present.

The number of independent schools has increased in Sweden. An escalating privatization of schools as well as a school reform has given students the right to choose school (Bunar, 2010). The escalating privatization and school choice have led to an increase of segregated educational settings, and were considered by Heimdahl Mattson and Malmgren Hansen (2009) to have led to an increase of segregated educational settings. Thus, school choice may also be a factor resulting in teacher shortage. For example, Bunar (2010) notes peculiarities in the policy of school choice, seeing both a strong market-orientation market-scepticism. While there is ambiguity regarding policy outcomes, the state of education has worsened through increasing segregation shifts of socially strong students between schools. Pareliussen et al. (2019) report that competition between schools, school choice and residential segregation may reduce equal opportunities for students.

Teachers in Sweden have also experienced several new or revised curricula, grading systems, and education acts since the 1960s (Richardson, 2010), which can have led to both contradictory and ambiguous understandings among teachers concerning their role as teacher.

Teacher education has been criticised in the more traditional public media in several countries in ways that affect how the responsibilities of a professional teacher should be understood (MacLure and

Pettigrew, 1997). For example, national achievements are related to how well teachers teach and their ability to teach effectively. Some stakeholders label teacher educators in higher education as incompetent (e.g. Labaree et al., 2004). This stance calls for new forms of teacher education, with teacher educators being replaced by experienced teachers, brain researchers and researchers in psychology. Beyond questioning the competence of teacher educators, there are issues regarding the need to move the core of teacher education to another discipline. Teacher education is larger in student volume than other discipline. There is the need to educate a large number of teachers in order to provide schools with teachers according to Labaree et al. (2004). Thus, the status in the academia is low. The need for order in the classroom could also be linked to the current critique of teacher education as a transmitter of student-centred progressivism. This shift from teacher focus to student-centred progress involves a lack of professional authority and has a negative impact on results (Labaree et al., 2004).

In line with curriculum reforms, quality in teacher education is a major challenge. In the first major evaluation of teacher education in over ten years, the Swedish Higher Education Authority (Universitets-och kanslersämbetet, UKÄ, 2019) has recently reviewed the quality of teacher education in the country. Almost half of Sweden's primary and lower secondary teacher education programs showed deficiencies in quality. A large part of the criticism was related to students not acquiring sufficient knowledge about research methods, scientific theory, and critical-thinking skills. According to the Skolverket (2019a), the most important priority is to strengthen the level of attractiveness in teacher education programs for dealing with teacher shortage. Teacher education will be crucial in taking on the challenge of teacher shortage along with continued efforts in shorter career paths into the teacher profession as well as a national strategy for teacher supply (Skolverket, 2019b).

Retention

Regarding the theme retention, three sub-themes emerged: work environment and conditions, support for new teachers, and status. It appears to be difficult to retain teachers in the teaching profession. Certified teachers working in other vocations was estimated to be some 15% in 2014, based on the study Teachers' Career Choices (In Swedish, Lärares karriärvägar). The reasons for leaving the teaching profession were reported as follows: 70% reported work environment (stress and workload), 60% working conditions (stress and working hours), while 40% were interested in other vocations. The combination of working hours and workload were the reasons given by some 60% and 55% of teachers who reported psychological stress as a reason for leaving the profession. Only 45% noted salary as a reason for leaving the profession. Of the teachers who left the profession, some 60% reported that they would consider returning if the working conditions were more reasonable (Statistiska centralbyrån, 2017). The teachers' trade union states that 35% of the teachers leaving the teaching profession in Sweden do not leave because of low salary; in fact, they end up in professions with similar or lower salaries.

As many as 35% of the teachers who leave school explain that their most important reason for leaving is the lack of support in dealing with conflicts with students or parents. Problems with the working environment in schools is one factor that many teachers highlight; both those who consider leaving the profession and those who have already left it (Olsson, 2017). Greene (2011) pointed out that half of all

the teachers that leave their profession do so during their first four years, mainly because of their relationships with students with behavioural problems and their parents. This is in line with the situation in the US, where the second-most-reported reason for teachers leaving the teaching occupation is dissatisfaction with student discipline and behaviour and the scant influence exerted by rules and sanctions of student behavioural conduct (Ingersoll, 2003).

For retention, teachers need support during their first years of teaching. In a report on newly educated teachers' experiences during their first time in the profession and developing a professional identity, Lundström (2019) describes and analyses 28 new teachers' first period of time (up to four years) in teaching. The result points towards a classical gap between theory and practice. Other results showed a more or less non-existent work introduction, the lack of mentors, strong workload and support from colleagues. One result was that the newly educated teachers saw that in teacher education, teacher practice placement (In Swedish, Verksamhetsförlagd utbildning (VFU)), was the most rewarding during teacher education. Here, improvements are needed in teacher education, however, these changes themselves may not be sufficient. Lundström (2019) points toward the importance of professional communities for supporting teachers to enjoy their work and stay in the profession, i.e. professional capital. The teaching profession is difficult, complex and involves many nuances. Newly educated teachers' experiences were related to three themes: commitment to students, the importance of goal management, heavy workload and weak support (Lundström, 2019).

Concerning status, the Organisation for Economic Co-operation and Developments (OECD) international study in TALIS (Teaching and Learning International Survey) compares the work situations and status of teachers and principals in different countries. Based on these reports, the National Agency for Education (Skolverket, 2019d) provided a bright picture of teachers' working day. Over 90% of Swedish teachers are satisfied with their work. Most teachers also consider the benefits of the profession to outweigh the disadvantages. At the same time, the profession's status is still perceived as low, showing that only between 11% and 26% of high school teachers believe that the teaching profession has a high status. For retention, teacher status must increase to attract more individuals to become teachers. Low status and the constant poor picture the media portrays of Swedish schools and teachers have had a strong impact on Sweden's teacher shortage (Henrekson, 2018). This picture of media has been supplemented with continued media reports on decreasing scores in PISA tests, and the turn towards more focus on learning skills and goal achievement and national tests in earlier school years. For example, in 2008, national tests were implemented in year 3 of elementary school in Swedish, Swedish as a second language and mathematics.

Recruitment

In this theme, three sub-themes were identified: *Attractiveness, increasing teacher status* and *strengthening conditions for recruiting teachers*. Fridolin and Jansson (2015) stated that it is important that the municipalities and other school organizers use the money that the state has set aside in a way that enhances the attractiveness of the teaching profession and enables more students to reach their goals (p. 5). Other stakeholders have emphasized allocating more money from the state to schools: "In order to handle the situation, the government should increase government grants to the school" (Jaara

Åstrand, 2019, June 20). The argument that Swedish schools should once again be transferred to the state has emerged out of these discussions. This can be seen to be in line with international calls for initiating the dialogue on teacher shortage among researchers, policy leaders, practitioners, teacher preparation programs, and other stakeholders in order "to look afresh at old and new data, so future policy dialogues on the nature of teacher shortages can be better informed, and so more targeted and impactful interventions can be developed to rectify teacher shortages where they exist" (Behrstock-Sherratt, 2016, p.1).

An ongoing, intensive discussion about teacher status continues among politicians, trade unions, and other stakeholders with the mantra of *high teacher status*, which in practice means to raise the status of teachers. There are many different ideas about how to improve teacher status, including focus from political and union representatives on municipalities' increased responsibility for teachers.

The conditions in the teaching profession need to be strengthened both short and long term to be able to meet teacher supply (Kungl. Ingenjörsvetenskapsakademien, 2020). In summary, the best way to meet this need and to make the teacher profession more attractive is to increase the number of individuals who choose to apply to teacher education, stay in the profession or return to the profession, is to improve the working conditions and to ensure that the teaching profession corresponds to the expectations (IVA, 2020).

Discussion

The aim of this article was to explore and analyse the serious situation in Sweden at present regarding the country's teacher shortage. The research questions were: 1) What is the current status in relation to teacher shortage in schools?; and 2) What are the main factors impacting on teacher recruitment and retention in Sweden? In summary, in regard to the problem of teacher shortage, it can be said that the important contributing causes or influencing factors to the teacher shortage from both historical and educational perspectives are many. Using a framework inspired by policy enactment theory (Ball et al., 2012), the involved stakeholders' actions and perceptions were shown to be bound and shaped by their contexts, while simultaneously reconstructing the context through practice as a dialectic process.

Firstly, the many political and structural changes which have taken place in the school systems in Sweden such as the shift from state to municipal control and the effects of NMP have had impact on teacher shortage. As the shift to municipal control has faced challenges (Grannäs and Frelin, 2020; Bunar, 2010) which in turn have led to quality issues and segregation (Pareliussen et al., 2019; Heimdahl Mattson and Malmgren Hansen, 2009). These challenges have most likely had strong impact on teacher shortage as well as having led to calls for transferring the responsibility for school organisation back to the state. Further, shorter career paths to alleviate teacher supply will be necessary as well a national strategy for teacher supply (Skolverket, 2019b) which takes a national responsibility for supporting school organizers in taking on teacher shortage. A national overview of these reforms is of importance. Despite good intentions by policyholders in the attempts to support teachers and teachers, the efforts and number of reforms do not appear to have had a positive effect on teacher

shortage. These efforts have had rather the opposite effect, having strengthened the challenges in retaining and recruiting teachers.

Secondly, changes in and the deterioration of the work environment have had impact, which has meant that teachers have left the profession. Many teachers leave the profession within the first four years (Olsson, 2017; Greene, 2011). Teachers have experienced more administration, and have taken on a widespread number of tasks such as being a special needs' teacher, increasingly heavy workloads, unruly classrooms and increases in social problems, and the scant consequences of rules and sanctions in regard to student behavioural conduct (Ingersoll, 2003). As student-centred progressivism has been implemented in the Swedish school system, professional authority has declined as well as results (Labaree et al., 2004). At the same time, the implementation of a goal and result based school has affected the working environment for teachers at schools. A teacher certificate is necessary to grade students. This creates great problems for small school units, as students must still be graded, which increased the pressure on certified teachers and therefore intensifying the teacher shortage. Another challenge is the issue of gender balance, where female teachers are dominant in many of the teacher categories. Further, how teachers consider the possibility of returning to the profession is of importance; some 60% reported that they would consider returning if the working conditions were more reasonable (Statistiska centralbyrån, 2017). Even if the National Agency for Education (Skolverket, 2019d) reported that over 90% of Swedish teachers are satisfied with their work, the status of the profession is still perceived as low. Teacher status must be increased from the low level of 11% and 26% among high school teachers who that believe that the teaching profession has a high status. This will be important in order to attract more individuals to enter the teaching profession. Improving working conditions and ensuring that the teaching profession corresponds to the expectations of being a teacher will be of importance (IVA, 2020). In order to take on these challenges it is most likely that and tangible and strategic efforts and initiatives will be necessary.

Thirdly, while the number of teacher categories has increased, many have dropped out from the teaching profession, with younger teachers leaving the profession; about 30% leave within 5 years. In the midst of the many changes in teacher education, many students have dropped out from teacher education, and approximately 75% pass the exam. This may be due to students not finding the education to be attractive. For instance, students who commence teacher education often do not choose it as their first choice but rather their second or third choice. Thus, for teacher education, this will involve a wider and more nuanced understanding of what is to be a teacher (MacLure and Pettigrew, 1997) in order to retain teacher students. This will also involve strengthening and enhancing the teacher profession and teacher educators (Henreksson, 2018; Labaree et al., 2004). This work may include grants, efforts and other initiatives in order to acknowledge and remedy this situation in order to retain and recruit teachers (Fridolin and Jansson, 2015; Jaara Åstrand, 2019 March 19; Jaara Åstrand, June 20).

Moreover, this acknowledges a continued gap between theory and practice. The gap between teacher education and working life calls for new strategies for retaining teachers such as professional communities for supporting teachers to enjoy their work and stay in the profession (Lundström, 2019).

Among the many teachers who have left the profession, initiatives and efforts may be needed to access this large recruitment potential (Adermon and Laun, 2018). Further, the teacher profession must be made more attractive in order to increase the number of new teacher students, retain teachers in schools and recruit those who have left the profession (IVA, 2020).

Conclusion

In regard to limitations, the picture presented in this paper cannot be said to be complete or comprehensive. However, the analysis provides insights into the status of teacher shortage as well as explanations, causes and possible solutions, which will be of national and international interest. The overall findings of this study point toward all too many ad hoc political and structural reforms over a longer period of time have had effects on teacher shortage. These many political reforms and structural changes have had effects which have been difficult to foresee, but which have had wide-ranging consequences for retaining and recruiting teachers. They have also involved strong impact on teachers' workload, working conditions and work environment. It appears that, paradoxically, each reform with the intention to improve quality in school has instead led to problems regarding teacher supply. This has been the case, for example, for teacher certification and the introduction of different teacher categories. It is also important to note that teacher shortage in Sweden, which started in 1975, is a phenomenon that has been present for quite some time. Perhaps it now is time to take action.

Implications for practice

Implications for practice involve strategic efforts to meet the challenges related to teacher shortage. These challenges must be targeted on several levels. On the national level, strategies must be taken to retain teachers in the teaching profession, providing and affecting norms and attitudes toward the teaching profession. Teacher recruitment will be necessary to involve teachers with alternative backgrounds, to attract younger and new teachers to the profession and to support teachers throughout their teaching careers. There will also the need for efforts such as continued education for teachers within the school system for teachers who are not qualified or certified. On the municipal level, cooperation between schools and higher education should be increased, as well as cooperation between municipalities in order to alleviate workload and improve teacher status. On the school level, supporting flexible work groups and work methods, continued education, school development and collaboration, technology implementation and specialization may be efforts to retain and support teachers and have effect on teacher shortage. For teacher education, efforts will also be necessary to take on challenges such as attractiveness to the teacher profession, throughput in teacher education and attaining and upholding high quality teacher education.

Future research

Future research in regard to the teacher shortage in Sweden will be continued in line with the work in WATS' up, a transnational research project. The overall purpose of the collaboration is to build a research network to explore, discuss and compare the state of the current situation of teacher shortage in Germany, Sweden and Denmark. The network is necessary to share and transfer knowledge and insights, as well as to gain new perspectives internationally. Among other aims, one important aim of

the research network is to produce versatile in-depth research and evidence-based knowledge. Hopefully this knowledge can contribute to international insights about the teacher shortage, and create a basis for changing strategies in regard to teacher shortage.

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