Who owns the knowledge? Knowledge construction as part of the school improvement process

Lena Glaés-Coutts and Henrik Nilsson
Linnaeus University, Sweden

Abstract
When Sweden began to experience a steady decline in student achievement results in PISA and TIMMS, the Swedish National Agency of Education initiated a model of collaboration with Swedish universities aimed at providing support to schools with falling student achievement scores. In this article, we examine how such projects can work at the local school level. Our focus is mainly on how knowledge construction can be realized for teachers and principals; we reflect on whose knowledge is valued, and we explore what role research texts play in school improvement. Working within the frames of both social and cultural processes, we looked at how teachers and principals are provided opportunities to develop and define their own professional understanding of school improvement. We found that knowledge construction of school improvement, as both a political and cultural process, needed to be based on local needs. The guidance of a knowledgeable other in interpreting research literature on school improvement can support such knowledge construction only when the local needs and history are part of the process.

Keywords
School improvement, knowledge construction, teacher professional learning, collaboration

Introduction
Over the last decade, the collaboration between researchers and educational organizations has grown exponentially (Fullan, 2007; Sahlberg, 2011). Researchers in educational science, along with politicians, have promoted and emphasized the power of scientific, evidence-based achievement in education, often focusing on how to improve educational achievement results (Nordin & Sundberg, 2014). The international trend toward accountability and scientific, researched based discourse in education has become part of the Swedish educational policy and can be found embedded in the language of all the national curriculum documents.

Sweden has traditionally been considered a country with a comprehensive public education system focused on equity. However, in the early 2000s, Sweden began to experience a steady decline in student achievement, as observed in PISA and TIMMS results. This downward trend resulted in record low scores in 2012. The Organisation for Economic Co-Operation and Development (OECD) report, Improving Schools in Sweden: an OECD Perspective (2015),
described how ‘No other country participating in PISA saw a steeper decline than Sweden’ over that period (p. 7). It was not until 2015 that the Swedish PISA results began to improve in the areas of Mathematics and Literacy (OECD, 2015). While there has been a cautious improvement noted after several years decline, there remains, however, a significant achievement gap among the Swedish schools. In addition, the disparity between student achievements within the schools has continued to widen (Skolverket, 2018). These negative results are often used in political debates in Sweden to criticize current policy and justify reforms (Proitz et al., 2017).

Like many other OECD countries, Sweden utilizes a National Inspection Agency to identify schools that fall below established standards. One of the suggestions in the OECD (2015) report was to strengthen the School Inspectorate by changing its mandate to one that supports a culture of administrative compliance by focusing on their responsibility for school improvement. In the light of this, the Swedish government tasked Skolverket (The National Agency for Education) with developing programs and strategies to provide support for the schools and school boards that have experienced challenges in meeting the national standards (OECD, 2015; Skolverket, 2018). They initiated this strategy by inviting collaboration with researchers at different Swedish universities.

Local schools and school boards now work in partnership with National Agency for Education and the universities to develop and support the implementation of school improvement plans for a 3-year period (Rönnström et al., 2017). The university researchers provide guidance and support to the school boards, municipalities, and the identified schools throughout the implementations of these projects. Utilizing evidence-based methods grounded in this research, these projects are expected to build a foundation for school improvement practices in the schools. It is estimated that to date, 150 municipal school boards, 450 schools, and 750 pre-schools have been given the opportunity to participate in these projects, collectively known as Samverkan för bästa skola (Collaboration for School Improvement). Currently, around 10 different universities in Sweden provide support to the schools involved.

School improvement

Research on school improvement reveals how schools with low student achievement scores often have significant barriers in their school governance structure, such as lack of organization, collaboration, and leadership (Leithwood & Strauss, 2008; Murphy, 2010; Rönnström et al., 2017). To move forward in the improvement cycle, professional learning by all members of the educational organization is essential for positive change to take place (Blossing, 2013). When constructing a new understanding of school improvement, it is important to consider how this process is influenced by the experience and knowledge that they themselves bring to the process. A system for ongoing renewal, continuous dialogue and reflection are, therefore, essential in creating an environment where deep learning can take place (Fullan & Langworthy, 2014; Korthagen & Vasalos, 2005).

A growing trend in school development research has been an increased focus on the school leadership role in improving student learning and achievement (Fullan, 2006; Leithwood & Strauss, 2008). However, the skills and knowledge of the teachers remain important factors and, thus, collaborative learning has increasingly become a way of approaching teacher professional development in both Sweden and elsewhere (Hallinger, 2015; Hargreaves & O’Connor, 2018; Robinson et al., 2009). Learning with others emphasizes the social aspect of knowledge construction as well as an opportunity for practical application of what is learned and reflected upon (Korthagen & Vasalos, 2005). The research further emphasizes how constructing and building upon school improvement knowledge is framed by both local and national contexts.
School improvement in Sweden: Samverkan för bästa skola (SBS)

During the last decade, the Swedish government has, prompted in part by the OECD report 2014, introduced several reforms and initiatives at the local school management level to deal with declining student achievement. The national curriculum has been revised with the hope of raising educational standards throughout Sweden. The official educational policy states that all education must be founded on research-based evidence and grounded in proven classroom practice (Swedish Education Act, 1 chapter 5). While the curriculum is the same nationwide, the implementation of it rests on the local municipalities. The OECD report pointed out the importance of providing support to schools with low achievement scores, and the Swedish government directed the National Education Agency to provide such support as needed (OECD, 2015; Skolverket, 2018).

The National Agency for Education is the central administrative authority for the public school system in Sweden, pre-school to adult education. In 2011, the Swedish government commissioned The National Agency for Education to develop and implement initiatives, in dialogue with school boards, which would improve school results. The mandate of the Samverkan för bästa skola (SBS) program is to support schools with low achievement results, low graduation rates, as well as schools, that have experienced challenges in improving student achievement on their own (Regeringsbeslut, 2015). However, it is worth mentioning that not all schools with low achievement scores and graduation rates are included in SBS. Participation is by invitation after the National Agency for Education has selected which schools and municipalities they consider to be in the greatest need of outside support in their school improvement work.

The schools work in collaboration with teams from the National Agency for Education in analyzing the schools’ current situation to identify areas for improvement. An agreement is signed between them and although the schools are active participants in creating improvement goals specific to the needs of their school, the National Agency of Education makes the final decision on the targets to be met. At this stage in the process, universities are invited to participate. Within the SBS framework, the main role of the university researchers is to provide support in both planning and implementing strategies and methods. Typically, two university researchers work closely with each school in analyzing the inventory of needs they have created together with The National Agency for Education. They then collaborate in creating a plan for improvement based on the needs of the individual school. In some instances, other researchers from the same university concurrently collaborate with the school boards on the municipal level. The focus of this article is on the work done by the researchers at the school level.

Aim

Large-scale national school improvement projects such as SBS are relatively new in Sweden. Thus, research published on this kind of collaboration between school, school boards, universities and the National Agency for Education is currently rather limited. The authors of this article are university researchers experienced in the implementation of various school improvement projects and work collaboratively with both schools and school boards. This article aims to investigate, within the framework of SBS, how knowledge building in school improvement is negotiated and enacted in this process. School development projects relying on improvement policy based on research from other countries do not always carry over to local school realities and thus the focus of this research is on the micro-level (Hargreaves & O’Connor, 2018).

This article aims to contribute to the research of how knowledge construction on school improvement literacy, in collaboration with outside agencies, is an important part of school improvement itself. Reflecting on the specific barriers and challenges that those involved in these
processes face, this article looks to highlight how working within the frames of both social and cultural processes, teachers and principals can explore ways to develop and define their own personal and professional learning of school improvement.

**Research method**

The research uses a qualitative interpretative approach that shares many of the elements of participant-observations, as both the researchers and the school leadership team were integral parts of the process. It further uses elements of implementation and evaluation-type research where the participants were involved in continually examining and reflecting over their learning (Håkansson & Sundberg, 2012).

To ground the research in the experience of the participants, individual and focus group interviews with the teachers and principals were conducted throughout the process. These data comprise information collected from two schools engaged in the SBS project in Sweden, 20 hours of individual interviews with the principals and 10 hours of focus group interviews with the teachers involved. Field notes, documents and personal reflections (such as impressions, interpretations and feelings) by the researchers were all used in the analysis phase. These data were coded and analyzed using the theoretical framework as a lens. The underlying assumption during the analysis phase was that all participants were interdependent in transforming and constructing new knowledge through this collaborative interaction.

**Theoretical framework**

The underlying theoretical framework used in this study is grounded in the theory of situated learning where the individuals involved and the situation within which it takes place are key elements that cannot easily be either contained or described in formal terms (Borko, 2004; Lave & Wegner, 1991). Situated learning is built on the concept that what and how we learn is constructed by the individual within a social, cultural, and temporal context. Thus, within this paradigm, learning cannot be directly transferred from an expert to the learner. The individual teacher’s knowledge, values and attitudes are important elements in this knowledge construction process.

The negotiations that take place during the process of knowledge construction are further formed by the conceptions and expectations that are connected to both institutional (I-identity) and personal identities (A-identity) (Gee, 2000). What Gee describes as I-identity is based on the position you hold, as it is understood by the institution, or in this case, the school where the participants work. The teachers and principals in our study can be said at having an I-identity that assumed both a certain subject and leadership competency. The A-identity, however, is closely connected to the group and the bond made by ‘allegiance to, access to, and participation in specific practices’ (Gee, 2000, p. 105). Collaboration within groups such as the ones created through the work with SBS may not naturally represent a division between these types of identities, as the collaboration is mandated rather than voluntary. As there may remain a power imbalance between the different parties (teachers, principals, researchers), this has been considered when analyzing the knowledge building that may take place during school improvement work (Braun et al., 2010).

**The schools**

The data for this article are collected from two different cases, and reflect the school improvement process during a 1-year SBS collaboration with researchers from the university. The authors of this article were engaged in collaboration with these schools during the same period. As
similar patterns appeared during the collaboration process, the two schools were selected for a deeper analysis of the knowledge construction during the collaboration. The main focus for the collaboration between the university and the two schools was on school leadership; principals, vice-principals, and the leadership group consisting of lead teachers referred to as First Teachers (Alvunger, 2015). The school role of the first teacher is a newly created position and is based on a model of distributive leadership. As a new initiative for enhancing teacher leadership in Sweden, the role has been implemented differently by the school boards. In the schools involved in this study, the responsibility of the first teachers was a combination of those of division chairs and lead subject teachers. The school improvement teams at both schools included principals who were new to the role and experienced mid-career teachers as first teachers. One of the schools had a vice-principal, while the other school did not get a vice-principal assigned to the school until more than halfway through the year and the vice-principal was new to this leadership role as well. The leadership team at that school further included one member who had the role of the school development coordinator.

While the two schools had different school improvement goals and trajectories of change, they share several similarities. Both were medium-sized schools, situated in smaller communities with long traditions of strong community connections. Both communities remain dependent on one major industry that provides a large percentage of the jobs in that community. The socio-economic status of the communities can be classified as working- and middle-class, and the school is viewed as an important part of the community structure. In the past few years, both communities had seen a change in local demographics. This is mainly the result of a recent influx of refugees and immigrants from other countries following the Swedish government’s decision in 2015 to enact policies allowing for the acceptance of over 160,000 asylum-seekers. This has led to different challenges and opportunities; not only in these communities but also throughout Sweden. As a result, the older, more homogeneous Swedish school culture is adjusting to the realities of students with different backgrounds, languages, and experiences. The two communities have had different reactions to this change. One example is where parents chose to enroll their children in a school situated in the closest major city rather than stay in their local school. As Sweden has a system of fully funded school choice, such a choice is not considered unusual, but the increased number of parents making such a choice has had an impact on both the school and the community. Both schools have further experienced a high turnover of principals and a shortage of qualified teachers, as well as falling student achievement scores on standardized national tests.

How professional development in collaboration with outside agencies such as universities can support local school improvement

Three major themes emerged during the analysis of the discussions with the teachers and school leaders involved in this project. When reflecting on how they saw working with the university researchers, the participants discussed what was most useful to them in constructing new knowledge on school improvement in their schools.

The first theme that arose from our analysis was how the process of collaborations structured around research-based literature led to new insights (Nordin & Sundberg, 2014). The second theme focused on the role that leadership can have in constructing and implementing school improvement knowledge. Finally, the third theme centered on the essential role the creation of foundational structures and routines has on both implementing and analyzing school growth (Leithwood & Strauss, 2008; Murphy, 2010; Rönnström et al., 2017).
Constructing new knowledge through discussions around research literature

The First teachers, principals and vice-principals found the format of collaborative learning helpful in interpreting texts reflecting current Swedish and international research on teaching, learning, school leadership, and school improvement. The participants described how examining the texts allowed them to reflect on their practice and discuss the topics together as a collaborative group. The role of the researchers was to select the texts and to guide the discussion. The main purpose of the texts was to give the teachers an opportunity to not only reflect on the research but also to view the research in the context of their realities. The texts allowed them to view how their school fits into a larger picture of the concept of school improvement. The participants appreciated being able to place their own experiences in this wider perspective. They gained new knowledge; knowledge that they were aware of their colleagues, who did not participate in the project, did not yet have access to. The First teachers explained that having gained this knowledge, they had a deeper understanding of the concepts discussed in comparison to their teaching colleagues. While they sometimes saw their newly constructed knowledge as a privilege, they also expressed a strong desire to share this knowledge with their colleagues.

For most of the participants, the knowledge they gained from dialoguing about the research texts was new, but also relevant to their own practice. Instead of a top-down transference of facts and information, the participants constructed new learning based on the research they read:

"I think it is good that we are talking much more about research now. It has been great how you help us connect our discussions to the research we have read. I feel that it has led us to think more about research at other times as well . . . Perhaps in a much broader way than we did before." (First teacher)

The principals further commented on the importance of dialoguing about this knowledge together. They expressed how the texts had provided a welcome insight for them into the complexity of school improvement and they felt they had deepened their understanding of the different aspects of school improvement in general:

"For me, it has been realizing the complexity in the different questions that the texts have created and has for me reinforced the importance of a distributed leadership." (Principal)

Furthermore, by reading and reflecting over a shared text, a common language developed, and the first steps toward shared understanding were created. By discussing the texts, they strengthened and deepened their comprehension of what they came to understand as being rather complex issues in education. At the beginning of the project, they talked about how the texts were challenging to read and understand. Through the discussions, they were able to process both the topics and the issues.

They considered the literature used as relevant, however, the discussions revealed that the texts reflected a reality far from their own. The guidance from a knowledgeable other, in this case, the researchers, became essential for them in interpreting and processing the research. Taking a critical stance in examining the research presented was an important aspect of understanding the research. Reading about current research on school improvement, with the support of the university researcher, led to more frequent reflections of their professional practice, as it was situated in their school. The teachers felt strengthened in their roles, both in the administrative aspect of leadership as division chairs and as instructional leaders, and as First teachers. Gaining an understanding of the research and discussing it together as a team allowed them to better articulate this knowledge to their colleagues. The focus on working with research-based evidence instilled a sense of moving toward a more professional stance in their work:
I wrote down that my first thought was that we have gained a lot of input on how to build new knowledge through the process of collegial collaboration when it comes to classroom teaching. Either through discussion or... through reading a good quality text that related to our work, we did not just reflect over it, but we were able to use it and try it out. (First teacher)

The process of learning collaboratively contained within it the opportunity to construct new knowledge about different aspects of leadership. As well, the participants expressed appreciation for the time and opportunity to clarify and define their roles and strengthen their leadership skills. The teachers learned various protocols on how to lead groups in collaborative learning. The teachers found that these protocols also deepened their knowledge of the pedagogical learning process. When leading their division groups, they applied this learning in a structured and productive way. It worked to build a common language for discussing issues situated in the local school environment. The dialogue during these meetings allowed for a deeper understanding of concepts and led to discussions on how to merge local needs and evidence-based knowledge:

The interpreting dialogue that we have had I feel has been extremely helpful because we have built a common understanding through it. (School development coordinator)

Feedback given by the participants reflects how they had developed a new professional attitude toward both their practice and toward the analysis of their work. When they reflected on their stance and understanding at the beginning of this process, they said they were amazed to see how their new level of professionalism that had now become a normal part of their discussions and dialogues. One teacher said that, in looking back, she clearly saw her own professional development and was almost embarrassed by her lack of knowledge at the beginning of the project. The incoming vice-principal in one of the schools also expressed how impressed she was with the approach the teachers took in discussing and analyzing their work. One teacher expressed how they not only had come to own this knowledge and discuss it with colleagues, but were also able to apply it to teaching students in the classrooms:

We deepened our knowledge in collaboration with our colleagues as well. It was not just about owning it (the knowledge), but that we brought it ‘to the floor’ with our colleagues and how we could use it in our classrooms with our students. (First teacher)

In one of the schools, the teachers decided to implement the use of ‘Focus Students’; an adapted model developed from Putting Faces on the Data (Sharratt & Fullan, 2012), where they chose two or three students to monitor and assess closely over time. This serves as only one example of how the participants took the knowledge they had built from reading the research and adapted it to fit their local needs. Through this process, they became more aware of how data and information about the students would help them in planning more effective and relevant classroom teaching. The excitement around the use of ‘Focus Students’ was evident, even though the teachers were keenly aware this was only the beginning of this process. They understood that they would have to commit to continuing this process into the next school year to see any results. The use of collaborative marking was a practice they had encountered in a previous project. The teachers expressed a wish to continue it and to model this practice for the other teachers to establish this collaborative approach to assessment. Sharing this new knowledge with their colleagues opened up a new dialogue around school improvement. While the participants once again spoke about the feeling of being ‘ahead’ in their professional practice in comparison with their colleagues, they described how their stance opened up the discussion of best practices. They felt that their colleagues were
more willing to discuss a lesson that did not go as planned and that rather than blaming the students (as was common in the past), they were open to discussing it professionally. This is how one of the teachers expressed this sentiment:

I see now that with my colleagues it is easier, and more permitted, to discuss failures. ‘What did I do wrong?’ It is rare these days to blame the students: ‘It was a bad group’. Instead, I now find that a colleague will come into my office and say, ‘Today I had a bad lesson’ and ask, ‘What do you think? What would you have done?’ or ‘What do you think I should change?’ (First teacher)

There was a consensus that working together in this format had promoted collegiality and collaboration between the teachers involved. The discussions around pedagogy and leadership had shaped the collaboration, and they worked together in preparing for the meetings with the university researchers. They come to see each other in a more professional light, and they were able to discuss challenging topics and debate on how to deal with them more effectively. This professionalism carried over into their work as division chairs and first teachers as well. They felt strongly about supporting each other and all the teachers in the school. During our meetings, we observed how the first teachers used this supportive approach. All participants expressed that they truly valued the additional time provided through this project for them to reflect and learn about school improvement. The simple fact that they had time to sit together and discuss issues or texts that was instrumental in developing new understanding and strengthening collaboration:

This group is a much more tight-knitted group now. We meet more often, especially now that we have the time to meet, which leads to us being on the same page. This additional time has also ensured that we feel less stressed. (First teacher)

**School leadership: balancing authority and support**

The role of leadership emerged as an important theme in our discussions at both schools. The concept of leadership pertained both to the formal leadership of the principal and vice-principal, as well as the leadership role that the first teachers played in the school improvement process. One of the major challenges at both schools had traditionally been a frequent change of leadership. Even though the First teachers were more likely to have been at the schools for a long time, the lack of direction and constant changes in leadership led to a lack of relational trust in the formal leadership. The principals at both schools further faced a lack of experience in their roles as new principals. While the participation in SBS supported the strengthening of their competencies as principals, the work of gaining the respect and trust of school staff was ongoing. The First teachers further grappled with the challenge of balancing authority with support in their roles as leading the teachers in the school growth process. How to manage this delicate balance, thus, became an important question throughout the project, where they reflected on how to step into the leadership role:

I am not trying to take up less space in our discussions and instead become better at listening to others in order to gain an understanding of their perceptions. (First teacher)

The teachers at both schools identified the feeling of being overloaded with many different outside initiatives as a significant challenge. Different projects and the implementation of new programs were constant elements in both schools, and school staffs were often unsure of which ones were a priority. The ability to see the connection between these initiatives and to sort out which ones were the most important for the local conditions became an essential role for the school leaders:
I believe, as leaders of this school, that we have to be brave. This *smörgåsbord* that the school board presents to us— all these different projects and opportunities to improve. . .it makes you confused! If we could identify what we need to work with ourselves, then we could close the door and work on what we need. (Vice-principal)

We found that, while there were individual stories at each school about school improvement, there were common ones as well. There was a clearly stated frustration with how one improvement initiative was often closely followed by yet another new initiative and without a clear connection between them. The lack of time to reflect on the impact of one change before moving on was problematic. Both schools were also dealing with demographic changes, with many new families moving into their neighborhoods and changing the communities. Most of these new families had come from different countries, and some were refugees from war-torn countries. In our discussions, many questions arose on how to best approach the many and varied needs of the newly arrived students. This feeling of frustration about moving at a fast pace from one initiative while simultaneously having new programs introduced was common to the teachers in both schools. Coupled with their concerns about how to deal with the newly arrived students, many teachers expressed a sense of confusion and uncertainty about how to deal with all the challenges they faced on a daily basis.

The participants expressed how through this collaborative process, they gained a new understanding of the importance of the specific history of school improvement at their school and the connection to current initiatives. In a climate of a constantly changing administration, it had often fallen to the lead teachers to carry this local history. The teachers shared how reading and discussing the research literature assisted them in developing a new understanding of the school improvement process. They further came to recognize that their history of school improvement could help them develop an understanding of how their school interpreted new processes and moved forwards. Thus, in reading about what current research reveals about school improvement, the participants gained a wider perspective of their school improvement path. They gained an understanding of both the process of school improvement and how their own experiences were an integral part of it. Working with the research literature, they came to reflect on the complexity of school improvement and began to see the connections between what they were doing and what the research was saying:

I have learned that it is important to be a messenger, a carrier of the history of the school to place it in a larger context. As such, I need to communicate this to our new school leaders and to care for what is best for our school (First teacher)

**Structures and routines that support school growth**

While working to gain an understanding of change processes and implementation challenges, the teachers recognized the important role structures and routines have in supporting and maintaining new initiatives. They decided that to do an inventory of best practices in their schools and review what worked best when it came to creating a structure that supports school improvement. Their discussions led to a recognition of the importance of having these routines and structures in place for school growth to be implemented and maintained:

Imagine that we had a simple yet efficient structure so that it would not even matter if you were new to our school. It would be so transparent and clear, and you would simply fall into using it. (First teacher)

The school leaders at both schools expressed how they often felt overwhelmed by their many responsibilities, including being at the head of school improvement. Both principals were new to the role and were sometimes unaware of how to implement and support new initiatives. They
further told us that they lacked practical knowledge of how to translate new plans into action. It was through the discussions with the leadership team that all involved came to understand the vital role of creating support systems for improvement has. One comment made by one of the principals about these routines was that they ‘really should be automatic; everyone should know what to do’.

Challenges and barriers

As with most school growth projects, there were both barriers and challenges to overcome during the process. While the focus of this article is on how knowledge building in school improvement is negotiated and enacted, it is important to recognize the impact of outside barriers. The two main challenges that faced the schools in our study were the lack of qualified teachers and the lack of learning opportunities for both the school leaders and the teachers.

The principals in both schools, being new to the role, had inadequate knowledge of school growth and virtually no experience in how to lead educational change. The Swedish system does not require principals to take courses on leadership before assuming their jobs. The most common practice is that the principals take leadership courses after they have been in the role for some time. Thus, the knowledge principals have on organization, leadership and school growth is what they seek out themselves. We found that it was unclear to the participants who would take on the role of change-agent during the school improvement process (Blossing, 2013; Pettigrew, 2003). There were expectations at both schools that the principals would be the ones to lead the school improvement work. These high expectations placed on the principals are deeply connected to their institutional identities. We observed that when the principals did not take on the traditional leadership role, the First teachers often acted as the carriers of the school history and experience. This took slightly different forms at the schools as in one school the First teachers quickly stepped into the school leadership role, while at the other school, the teachers became passive and unengaged, and did not share their knowledge with the principal. The principals lived up to the institutional role in terms of understanding the different theories of school growth but were unable to interpret them in terms of the school context. Based on our fieldnotes and observations, we drew some careful conclusions on how the principals viewed their institutional and personal identities (Gee, 2000) and the impact this had on the trajectory of school improvement. We found that the principals in these projects had great challenges in trying to live up to the formal expectation of a vertical institutional identity (I-identity). The principals needed not only to have a good understanding of the knowledge, skills and professional competencies of all the teachers involved, but also a deep understanding of how to bring the teachers into the process. The teachers needed to feel acknowledged as co-creators and partners. They further required an increased understanding of the formal institutional role they played in the school improvement process. As a result of the principals not being secure in their institutional identity, the creation of a group, or affinity identity, was impaired which in turn weakened the school improvement process itself.

As the role of a First teacher is relatively new, it does not yet have a common job description. It became evident that the different interpretations of this role contributed to the teachers’ challenge of acting as part of the leadership team. The role constitutes a new institutional identity and the negotiation between the A-identity of being an experienced subject teacher and that of leading their peers in the school improvement process was a great challenge. Thus, one of the tasks that we undertook during the project was working to clearly define the mandate of the First teachers at each school. They themselves expressed a strong desire for clarity about their roles. They were interested in exploring what aspects of leadership their role would play in the school community. As one of the First teachers put it: ‘There is a challenge of knowing how to lead without ending up acting as the boss’.
A further challenge was how to approach the requirement by the National School Agency to use analysis in the process of creating school improvement goals. We found that all the participants had a gap in understanding how to use data as part of school improvement.

As the National Agency of Education requires the schools to use data to create the school growth plans, the absence of data literacy made the planning and implementation demanding for all involved. Neither the principals nor the First teachers had professional training in this area. Thus, they were often unsure of what these data were telling them and how to proceed.

One of the largest barriers to the implementation of a school improvement plan is the large percentage of unqualified teachers in the classrooms. The school system is currently experiencing a teacher shortage throughout Sweden, which means that many schools employ unqualified teachers to meet their needs. This has become a particularly challenging issue for schools that serve a population of students with higher needs, such as the two schools in our study:

One factor that makes the project more difficult is the variation of education level and competence among the teachers hired to the school. A large part of our teaching staff does not have teaching qualifications, which means they do not have the pedagogical background that is needed for extensive school growth projects such as this. (First teacher)

Discussion – complexities of school development

The policy allowing parents and students the freedom to choose a school, the introduction of publicly funded independent schools as well as the competition between schools, have been key trends in educational policy in recent decades (Apple, 2004; Ball, 2003). Sweden is part of that trend and currently has ‘one of the least centralized educational systems of all OECD nations’ (Voyer, 2019, p. 2). The educational reforms in Sweden were grounded in a belief that equal choice opportunities would contribute to both an increased quality and efficiency of public funds. As well, it was viewed as a way to promote social equality. The results of this research indicate instead that social and ethnic segregation has increased because of school choice reforms (Ambrose, 2016; Böhlmark et al., 2016; Lund, 2015).

In our study, we considered how these reforms have affected local school improvement is understood and implemented. Research highlights the vital role school leadership plays in implementing and succeeding with school improvement (Wei, 2017). While school growth is a complex and multifaceted process, consisting of interacting and sometimes contradictory factors, our study demonstrated the importance of school improvement literacy as part of the process. Too often, educational change is based on a ‘snapshot view’ (Hargreaves & Goodson, 2006) where the pressure to quickly reach broadly set improvement goals is rushed. To be effective, school improvement must be understood as a long-term process: ‘Ultimately, the sustainability of educational change can only be addressed by examining change experiences in a range of settings from the longitudinal perspective of change over time’ (Hargreaves, 2006, p. 5). Unlike the reforms in Ontario, Canada that were centrally implemented and controlled by the Ministry of Education, the SBS approach in Sweden reflects the belief in choice for each school and school board (Glaze, 2013).

In this process, the role of school leaders, be it principals, vice-principals or First teachers, became pivotal. It is, therefore, of the utmost importance that they are given the opportunity to develop their understanding of the process as well as the time to collectively construct their knowledge based on their school’s specific history and situation. By participating in a process such as SBS, the teachers and principals can explore ways to define their own personal and professional learning. As school improvement research states that all types of pedagogical leadership are an important success factor, it is therefore imperative that leadership at both schools and school boards
be examined as part of the school growth process (Fullan, 2001, 2006). While this study focused on pedagogical leadership at the school level, the fact the schools were asked to develop and implement improvement with little internal or local support may reveal a lack of understanding about the complexity of leadership at other levels as well. We found that knowledge construction of school improvement, as both a political and cultural process, needed to be based on local needs. The guidance of a knowledgeable other in interpreting research literature on school improvement can support such knowledge construction only when they take into account both local needs and the local school improvement history. To construct relevant knowledge, merging the local situation with research-based evidence becomes vital to the process. It is crucial to recognize that research findings are not easily transferrable from one school to another: ‘Reform is like ripe fruit – it does not travel very well’ (Hargreaves & O’Connor, 2018, p. 130).

An added factor of complexity with school improvement in the Swedish context is the culture of a flat hierarchy, based on the deep-seated belief in equity and equality that is integral to Swedish society. The fact that the school leaders in this study (principals, vice-principals, and First teachers) lacked school improvement knowledge, as well as leadership skills, needed to lead the process, was furthered hampered by this flat hierarchy structure (Håkansson & Sundberg, 2012). As everyone’s voice is expected to be valued equally in the organization, the ability to lead became a challenge in implementation (Lieberman & Friedrich, 2010). According to the World Value survey, the culture of equality and individualism are extraordinarily strong norms in Sweden (Inglehart et al., 2014). The everyday reality for the principals, school leaders, and teachers reflect this cultural belief system, making a top-down decision process that is sometimes needed for change, extremely challenging for the leaders. While the First teachers may remain ambivalent about their leadership role, it is through their new institutional identity that is created in working within the SBS project that they become more aware of the need for leadership in the school improvement process. Thus, the flat hierarchy does not necessarily become an obstacle to progress but is a factor that needs to be considered as part of the path forward. The frequent change in teachers and school leaders along with the feeling of school initiative overload, has further made creating a deeper coherence around all aspects of school improvement challenging to all involved.

In conclusion, to address our question of who owns the knowledge in the school improvement process, we reflect on who is ultimately making the decisions about ‘what works’ (Biesta, 2007). While the research-based texts provided a framework from which to begin the process of constructing situated knowledge, our study points to the impact that both local and national realities have on the school growth process in each individual school. To assess what research is valid in the local circumstances and ensure sustainability, we as outside researchers must be responsive to the culture of the school as well as the experience and knowledge of the participants in this process. The importance of the participants being encouraged to use their professional judgment on both what to learn and how to learn may be seen as one avenue toward sustainable change.

Researchers (Fullan, 2001; Miles & Seashore Louis, 1990) estimate that sustainable school growth will take between 3 years and 8 years. As we only participated in the process at 2 schools for 1 year, we did not have the opportunity to observe if any school growth had taken root, thus making it challenging to evaluate the impact of our involvement. Both principals left their schools after the year and one of them went back into teaching. Several of the teachers changed schools, so the possibility of sustainable change is uncertain. The teacher shortage and the lack of principal professional knowledge are likely to remain major challenges, and may indeed affect the progress of projects such as the ones in this study.

Further research into how the current Swedish school climate and culture affect school improvement is needed to gain a deeper understanding of how to build capacity for educational change. To explore this process of translation and negotiation to local realities, it is vital to take a longitudinal view focused on the individual actors in the schools.
References

Alvunger, D. (2015). Towards new forms of educational leadership? The local implementation of förstelärare in Swedish schools. *Nordic Journal of Studies in Educational Policy, 2015*(3), 55–66.

Ambrose, A. (2016) *Att navigera på en skolmarknad – en studie av valfrihetens geografi i tre urbana skolor* [To navigate the school market- a study in the geography of choice in three urban schools] Barn–och ungdomsvetenskapliga institutionen [Department of Child and Youth Studies], Stockholm University.

Apple, M. (2004). *Ideology and curriculum* (3rd ed.). RoutledgeFalmer.

Ball, S. J. (2003). The teacher’s soul and the terrors of performativity. *Journal of Education Policy, 18*(2), 215–228.

Biesta, G. (2007). Why ‘what works’ won’t work: Evidence-based practice and the democratic deficit in educational research. *Educational Theory, 57*(1), 1–22.

Blossing, U. (2013). Förändringsagenter för skolutveckling: Roller och implementeringsprocess [Change agents for school improvement: roles and the implementationprocess]. *Pedagogisk forskning i Sverige, 18*(3–4), 153–174.

Böhlmark, A., Holmlund, H., & Lindahl, M. (2016). Parental choice, neighbourhood segregation or cream skimming? An analysis of school segregation after a generalized choice reform. *Journal of Population Economics, 29*(4), 1155–1190.

Borko, H. (2004). Professional development and teacher learning. *Teachers and Teaching, 8*, 3–15.

Braun, A., Maguire, M., & Ball, S. (2010). Policy enactments in the UK secondary school: Examining policy, practice and school positioning. *Journal of Education Policy, 25*(4), 547–560.

Fullan, M. (2001). *Leading in a culture of change*. Jossey-Bass.

Fullan, M. (2006). The future of educational change: System thinkers in action. *Journal of Educational Change, 7*(3), 113–122.

Fullan, M. (2007). Achieving large-scale reform. In R. McLean (Ed.), *Learning and teaching for the twenty-first century: Festschrift for Professor Phillip Hughes* (pp. 137–144). Springer.

Fullan, M., & Langworthy, M. (Eds.). (2014). *A Rich Seam. How New Pedagogies Find Deep Learning*. Pearson. http://www.michaelfullan.ca/wp-content/uploads/2014/01/3897.Rich_Seam_web.pdf

Gee, J. (2000). Identity as an analytic lens for research in education. *Review of Research in Education, 25*(1), 99–125.

Glaze, A. (2013). How Ontario spread successful practices across 5,000 schools. *Phi Delta Kappan, 95*(3), 44–50.

Håkansson, J., & Sundberg, D. (2012). *Utmärkt undervisning: Framgångsfaktorer i svensk och internationell belysning* [Excellent education: Success factors in Swedish and International research] (1st ed.). Natur & Kultur.

Hallinger, P. (2015). *Assessing instructional leadership with the principal instructional management rating scale*. Springer-Verlag.

Hargreaves, A., & Goodson, I. (2006). Educational change over time? The sustainability and nonsustainability of three decades of secondary school change and continuity. *Educational Administration Quarterly, 42*(1), 3–41.

Hargreaves, A., & O’Connor, T. (2018) *Collaborative professionalism: When teaching together means learning for all*. Corwin Publishing.

Inglehart, R., Haerpfer, C., Moreno, A., Welzel, C., Kizilova, K., Diez-Medrano, J., Lagos, M., Norris, P., Ponarin, E., Puranen, B., et al. (Eds.). (2014). *World Values Survey: Round six: Country-pooled datafile version*. http://www.worldvaluessurvey.org/WVSDocumentationWV6.jsp

Korthagen, F., & Vasalos, A. (2005). Levels in reflection: Core reflection as a means to enhance professional growth. *Teachers and Teaching: Theory and Practice, 11*(1), 47–71.

Lave, J., & Wegner, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge University Press.

Leithwood, K., & Strauss, T. (2008). *Turnaround schools and the leadership they require*. Canadian Education Association.

Lieberman, A., & Friedrich, L. (2010). Teacher leadership: Developing the conditions for learning, support and sustainability. In A. Hargreaves, A. Lieberman, & M. Fullan (Eds.), *Second international handbook of educational change* (pp. 647–667). Springer.
Lund, S. (2015). *School choice, ethnic divisions, and symbolic boundaries*. Palgrave Macmillan.

Miles, M. B., & Seashore Louis, K. (1990). Mustering the will and skill for change. *Educational Leadership, 47*(8), 57–61.

Murphy, J. (2010). Turning around failing organizations: Insights for educational leaders. *Journal of Educational Change, 11*(2), 157–176.

Nordin, A., & Sundberg, D. (2014). *Transnational policy flows in European education: The making and governing of knowledge in the education policy field*. Symposium Books.

Organisation for Economic Co-Operation and Development. (2014). *TALIS 2013 results: An international perspective on teaching and learning*. https://doi.org/10.1787/9789264196261-en

Organisation for Economic Co-Operation and Development. (2015). *Improving schools in Sweden: An OECD perspective*.

Pettigrew, P. J. (2003). Power, conflicts, and resolutions: A change agent’s perspective on conducting action research within a multorganizational partnership. *Systemic Practice and Action Research, 16*(6), 375–391.

Prøitz, T., Mausethagen, S., & Skedsmo, G. (2017). Data use in education: Alluring attributes and productive processes. *Nordic Journal of Studies in Educational Policy, 3*(1), 1–5.

Regeringsbeslut. (2015). *Uppdrag om samverkan för bästa skola* [Assignment of Collaboration for School Improvement] (U2015/3357/S). https://www.regeringen.se/49cb50/contentassets/583f248e9baa4d9a80f73c30e5f53c30/uppdrag-om-samverkan-for-basta-skola.pdf.

Robinson, V., Hohepa, M., & Lloyd, C. (2009). *School leadership and student outcomes: Identifying what works and why: Best evidence synthesis iteration*. New Zealand Ministry of Education.

Rönnström, N., Rogberg, M., & Nytell, U. (2017). *Nationellt FOU-stöd inom Samverkan för bästa skola. Från pilotprojekt till fortsatt samverkan*. Stockholms Universitet.

Sahlberg, P. (2011). *Finnish lessons: What can the world learn from educational change in Finland*. Teachers College Press.

Sharratt, L., & Fullan, M. (2012). *Putting FACES on the data: What great leaders do!* Corwin Press.

Skolverket. (2018). *Redovisning av uppdrag om Samverkan för bästa skola* [Rapport on Collaboration for school improvement]. https://www.skolverket.se/getFile?file=3923

Voyer, A. (2019). If the students don’t come, or if they don’t finish, we don’t get the money. Principals, immigration, and the organizational logic of school choice in Sweden. *Ethnography and Education, 14*, 448–464.

Wei, W. (2017). Education policy borrowing: Professional standards for school leaders in China. *Chinese Education & Society, 50*(3), 181–202.