



FEATURE

Researching school practices with a complementary and symmetrical approach – the case of remote teaching in the rural north of Sweden

J Ola Lindberg¹, ola.j.lindberg@umu.se

Jörgen From¹, jorgen.from@umu.se

Tomas Holmgren¹, tomas.holmgren@umu.se

Petter Lundberg², petter.lundberg@regionvasterbotten.se

Gerd Pettersson¹, gerd.pettersson@umu.se

Fanny Pettersson¹, fanny.pettersson@umu.se

Linda Rudolfsson², linda.rudolfsson@regionvasterbotten.se

Tobias Thomson², tobias.thomson@regionvasterbotten.se

¹ Umeå University, Sweden

² Region Västerbotten, Regional Development

DOI Number: <https://doi.org/10.26203/f6a9-pk97>

Copyright: © 2020 Lindberg *et al.*

To cite this feature: Lindberg, J. O. *et al.* (2020). Researching school practices with a complementary and symmetrical approach – the case of remote teaching in the rural north of Sweden. *Education in the North*, 27(2) pp. 235-241.



This is an open-access article distributed under the terms of the Creative Commons Attribution-Non-commercial License (<https://creativecommons.org/licenses/by-nc/4.0/>), which permits non-commercial use, distribution, and reproduction in any medium, provided the original author and source are credited.

Researching school practices with a complementary and symmetrical approach – the case of remote teaching in the rural north of Sweden

J Ola Lindberg¹, ola.j.lindberg@umu.se

Jörgen From¹, jorgen.from@umu.se

Tomas Holmgren¹, tomas.holmgren@umu.se

Petter Lundberg², petter.lundberg@regionvasterbotten.se

Gerd Pettersson¹, gerd.pettersson@umu.se

Fanny Pettersson¹, fanny.pettersson@umu.se

Linda Rudolfsson², linda.rudolfsson@regionvasterbotten.se

Tobias Thomson², tobias.thomson@regionvasterbotten.se

¹ Umeå University, Sweden

² Region Västerbotten, Regional Development

Abstract

This feature describes an ongoing research project on remote teaching in the rural north of Sweden. Remote teaching is a form of teaching in which the teacher and students are separated in space but not in time, and students are accompanied by a designated supervisor at their location. The project is conducted within the framework of the national initiative Development, Learning, Research (DLR) to try out sustainable collaboration models between academia and school practice. At Umeå University, this relation has been described as complementary and symmetrical: complementary in the sense that each part brings unique competencies into the work, and symmetrical in the sense that each part is valued as equal in the work, which allows for a dimension of development work into the research approach. The feature elaborates on opportunities and challenges in conducting complementary and symmetrical research, seeking to promote knowledge built on collaboration between academia and school practice.

Keywords: research and development; school practice; collaboration

Background of the research and development project

The Swedish government has commissioned a national pilot project to test sustainable collaboration models between academia and the school or school system regarding research, school activities and teacher education for the period 2017 to 2021 (see further at ulfavtal.se). Expectations include contributing to the research base of the school system, and conducting research built on equal terms between researchers and schools. In Sweden, there is an explicit expectation in the Education Act that education is to “rest on scientific grounds and proven experience” (Swedish Education Act, paragraph 5). This means that teachers are expected to base the exercise of their profession on research, and that school development must be permeated by a scientific approach. The national pilot project also rests on the assumption of a perceived gap between theory and practice, which means that it is difficult to apply research in educational sciences to school activities, perhaps due to ownership of problems of relevance for practice. Along with this argument, the development of sustainable collaboration models between the school system and academia resting on common grounds is formulated as a goal of the pilot project.

At Umeå University, this relation has been described as complementary and symmetrical: complementary, in the sense that each part brings unique competencies into the work; and symmetrical, in the sense that each part is valued as equal in the work. This also means allowing for a dimension of development work into the approach to research. However, the idea of forming collaborations between schools and academia to improve the quality of the educational practice is not new. There is a growing body of initiatives that aim to connect school improvement with external actors, such as universities, through networks and collaborative partnerships of different kinds (Chapman et al., 2016). Research shows how this may lead to meaningful changes in the teaching and learning processes in schools (Ainscow, 2012). Literature on initial teacher education, professional development for teachers, and educational research acknowledges how school–academia partnerships are powerful collaborations that can result in improved practice and results for students (Day & Smethem, 2010). However, only a limited amount of research tries to understand how such partnerships and collaboration forms stem from strategic leadership (e.g., Murphy, 2017).

In this paper, we present a project formulated and run as an example of how such collaborations can be built on strategic decisions about both forms of collaboration and content of collaboration. The paper first describes the local needs for development work through descriptions of the two partners in the project, the regional Västerbotten Region organisation and their work with regional schools and the university. Then, the project organisation, work forms and content are briefly described. In the end, we provide a brief discussion of how a certain methodology can be built into a collaboration to provide space to improve educational practice based on a complementary and symmetrical approach.

Local formulation in the Västerbotten region of overall development needs for research and practice

At Umeå University, several projects have been initiated in the Västerbotten region within the framework described above. This paper describes and elaborates on one of these, the cooperative work conducted

by staff from the (1) Region of Västerbotten organisation, Regional Development, along with staff from the municipalities of Örnsköldsvik and Umeå, and (2) Umeå University, Department of Education. In brief, the project stems from several years of ongoing cooperative work on the practice of remote teaching in the local region. Remote teaching is a certain form of teaching in which the teacher and students are separated in space but not in time, and students are accompanied by a designated supervisor at their location. Remote teaching has been allowed in the Swedish school system, only in certain areas of the curriculum and in certain school years of elementary and upper secondary school. Trials have been conducted to further expand and allow for remote teaching. In this area, researchers from the Department of Education, along with staff from the region working with regional development, have worked together closely for more than five years, prior to the currently described project.

Region of Västerbotten organisation, Regional development

Region Västerbotten organisation is politically regulated with two important tasks - to develop and offer health and medical care, as well as regional development. According to guidelines from the government, Region Västerbotten organisation works at a strategic level to contribute knowledge, skills, commitment, and development to the entire County. In close collaboration with and gathering power and skill from the region's 15 municipalities (Bjurholm, Dorotea, Lycksele, Malå, Nordmaling, Norsjö, Robertsfors, Skellefteå, Sorsele, Storuman, Umeå, Vilhelmina, Vindeln, Vännäs, Åsele) and other actors within and outside the County, their aim is to create better conditions for powerful, long-term, sustainable development.

An important aspect of sustainable development is equal access to school and education in the County. However, the conditions for providing equal access to quality education varies between small and large municipalities. The shortage of teachers is a critical issue throughout the County, and an even greater challenge in sparsely populated areas. Through digitalisation, new paths can be created that support schools and education in sparsely populated areas. This can occur through a well-developed infrastructure for remote and distance education. Since 2015, Region Västerbotten organisation has been developing remote teaching in the County. Through remote and distance teaching, equality and quality in teaching can arise, regardless of where people in Västerbotten live.

Department of Education – Research Group Learning and ICT (LICT)

The project is conducted within the research environment LICIT within the Department of Education, Umeå University. LICIT has, for nearly 18 years, focused on issues related to the use of information and communication technologies (ICT) in educational practices. LICIT consists of two professors (one with a position at the University of Gävle), two associate professors, six senior lecturers, four doctoral students, two junior lecturers and one ICT expert. The research is often based on a versatile design and focuses on professional work and professional development in technology-rich environments. School leaders, teachers and students in primary and secondary school are often target groups for research results.

Organisation and work forms of the project

The organisation of the project builds on the work of the staff of the two relevant partners the regional development work conducted within eleven municipalities in three regions, coordinated through the work of local regional developers, and the work of researchers collaborating on work in a research group at the Department of Education. Altogether, there are eight representatives from the regional work group and five representatives from the university researchers. The project members meet four times a year to brief each other on ongoing work, and to draft a common agenda for the work until their next meeting. During these meetings, research studies and local development work is jointly planned and launched. Work is roughly organised into four different areas or levels, described in the following sections: a municipality level, a school district level, a collegial level, and a teaching level.

Municipality level

On a municipality level, there has been a focus on the superintendent position. It has been aimed at providing ground for a mutual understanding of the importance of school leadership and organisation for remote teaching. It has, for instance, resulted in the joint recruitment of remote teachers in modern languages divided between principals and municipalities.

School district level

On a school district level, the focus has been on school leadership for remote teaching, for instance, in organising teams of remote teachers, as well as providing support and collaboration to develop remote teaching.

Collegial level

On a collegial level, the focus has mainly been on establishing and maintaining different networks of teachers, in formal and informal groups supported by social media, and initiating a network for teachers in small schools in sparsely populated areas. All networks are set for collegial support and work.

Teaching level

On a teaching level, the focus has primarily been on competence development for teachers who are to start remote teaching, as well as further professional development aimed at developing the practice of remote teaching in different subjects, school years, and contexts.

Methods for research and development

In this particular case, researching remote teaching in the rural north of Sweden, the rationale of the research approach can be found in the works of Sannino and Engeström (2017). It may be considered as a formative intervention into the practices of working with remote teaching to improve the educational quality. The basis for the formative intervention is a sequence of informational meetings, workshops and group discussions in which researchers and practitioners elaborate on a common understanding of the object of the activity (cf. Engeström, 2011). Thus, these sessions may be considered as a space for practitioners to explore their practice and improve its quality. The approach utilises the basic principles of the change laboratory approach, which are double stimulation and ascending from the abstract to the concrete.

Although experiences of remote teaching/leadership serve as first stimuli for discussions, previous notions on leadership and technology in education are generated and introduced as second stimuli, using results of an online survey covering five areas. The project explores the possibilities of the results of the survey to be introduced into the formative interventions as a second stimuli, intended to move the practitioners from an individual understanding towards a collective, along with the possibilities for the approach being a symmetrical and complementary way of conducting research, and thus also development work of relevance for school practice.

The areas of the survey are constructed based on a theoretical understanding of remote teaching in which pedagogical digital competence (PDC) at an individual (From, 2017) and organisational level (Pettersson, 2018) is part. The parts of the survey are as follow: (1) individual and organisational background; (2) notions of leadership (based on Yukl, 2013); (3) organisational digital maturity (based on Tillväxtverket, 2017); (4) attitudes to technology (based on Kerschner & Ehlers, 2016, and Holden & Rada, 2011); and (5) levels of expansive learning with digital technology (based on Engeström, 2015). By means of double stimuli, the practitioners can question and analyse the school activities, and elaborate on new forms and structures within their practice (Sannino, Engeström & Lemos, 2016).

Conclusions, Expected Outcomes or Findings

As can be read from the different examples of initiatives already considered in the project, the chances of moving the practitioners from an individual understanding towards a collective one seem, to date, to be good.

That means that the possibility that the approach will be a symmetrical and complementary way of conducting research, and thus development work of relevance for school practice with the explicit intention to improve the quality of the educational practice, can thus far, be said to be good. From our perspective, the complementary and symmetrical approach that comes with the ULF-project is particularly important in the development of remote teaching in Västerbotten. With support from the professional academics who have research-based knowledge in the field of remote teaching, the work within the area of school and education in Västerbotten can be refined. Due to a well-functioning dialogue between practitioners and the research group, areas of development in remote teaching in Västerbotten are easily identified, and due to the symmetrical and complementary approach, these areas can also be researched while being developed. The joint work within the project is, in this way, efficient and successful, and we note that, in the end, it is our pupils and teachers within Västerbotten County that benefit from the complementary and symmetrical approach. It ensures the quality of learning in remote teaching and helps us to understand and develop our organisations and structures. This would not have been possible without this project, and we are looking forward to further studies on these different school practices being able to meet the future requirements in education.

For the approach to be a genuine form of collaboration that provides possibilities for the research to function as the scientific ground that educational quality should rest on, as is intended in the Education Act, there are a number of possibilities, as well as challenges related to the model. One challenge is the inconsistency of educational practice as such and the contextual boundaries of knowledge of what

works and improves the quality of practice. Another challenge is the issue of formulating what kind of problem, or knowledge, in practice can be focussed in a complementary and symmetrical relation with practice. New ways of designing research studies and posing questions can be a challenge, as can be the problem of knowing the needs of a specific local school practice when the practice itself has no previous tools to articulate the needs of knowledge that it might have (this is akin to Menon's paradox, on searching for knowledge you need when you do not know what it might look like, and if you do know then you already have the knowledge (c.f. Uljens, 2001)). In the rationale of formative interventions, such challenges are termed double binds (Sannino and Engeström, 2017). They are challenges in practice where no one individual system (i.e. research or schools) alone can transform a shared object of activity. To resolve such challenges collaboration is required, and this is our commitment to a complementary and symmetrical design.

As a final remark, we would like to add that the underlying rationale of closeness (practice-research) is, at the same time, somewhat difficult and a challenge in itself, as it rests on an assumption that only those with a close relation to practice know it well enough to pose relevant questions. It also gives the researchers' qualifications as researchers, as those specially trained in formulating ideas about the nature of knowledge (both relevant and of no relevance for), little value. In this lies the challenge of keeping the approach complementary and symmetrical.

References

- AINSCOW, M. (2012), "Moving knowledge around: Strategies for fostering equity within educational systems", *Journal of Educational Change*, 13(3), pp. 289–310.
- CHAPMAN, C., CHESTNUTT, H., FRIEL, N., HALL, S. and LOWDEN, K. (2016), "Professional capital and collaborative inquiry networks for educational equity and improvement?", *Journal of Professional Capital and Community*, 1(3), pp. 178–197.
- DAY, C. and SMETHEM, L. (2010), "Partnerships between schools and higher education", In N. Verloop (Ed.), *International encyclopedia of education* (3rd ed.), Location, England: Elsevier, pp. 757–763.
- ENGESTRÖM, Y. (2011). From design experiments to formative interventions. *Theory & Psychology*, 21(5), 598-628.
- ENGESTRÖM, Y. (2015). *Learning by expanding: An activity-theoretical approach to developmental research* (2nd ed.). Cambridge: Cambridge University Press.
- FROM, J. (2017). Pedagogical Digital Competence--Between Values, Knowledge and Skills. *Higher Education Studies*, 7(2), pp. 43-50.
- HOLDEN, H. and RADA, R. (2011). Understanding the influence of perceived usability and technology self-efficacy on teachers' technology acceptance. *Journal of Research on Technology in Education*, 43(4), pp. 343-367.

KERSCHNER, C. and EHLERS, M. H. (2016). A framework of attitudes towards technology in theory and practice. *Ecological Economics*, **126**, pp. 139-151.

MURPHY, J. (2017), "Creating communities of professionalism: Addressing cultural and structural barriers", In J. Sun, K. Pollock, & K. Leithwood (Eds.), *How school leaders contribute to student success: The Four Paths Framework [Electronic resource]*, US: Springer, pp. 239–262.

PETTERSSON, F. (2018, October). *Digitally competent school organizations—developing supportive organizational infrastructures*, Seminar.net, **14**(2), pp. 132-143

SANNINO, A. and ENGSTRÖM, Y. (2017). Co-generation of societally impactful knowledge in change laboratories. *Management Learning*, **48**(1), pp. 80-91.

SANNINO, A., ENGSTRÖM, Y. and LEMOS, M. (2016). Formative interventions for expansive learning and transformative agency. *Journal of the Learning Sciences*, **25**(4), pp. 599-633.

SWEDISH EDUCATION ACT, paragraph 5. Retrieved 2020-08-26 from:

https://www.riksdagen.se/sv/dokument-lagar/dokument/svensk-forfattningssamling/skollag-2010800_sfs-2010-800

TILLVÄXTVERKET. (2017). *Analysera digitalisering i företag - Några olika sätt att uttrycka digitalisering - baserat på en forskningsöversikt* (Rapport 0219). Stockholm: Ruth

Yukl, G.A. (2013). *Leadership in organizations*. (8. ed., Global ed.) Boston: Pearson.