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FEATURE

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Cross-school collaboration in the Finnish archipelago through Virtual Learning Environments

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Abstract

In this feature, I present implications from a cross-school project in the Finnish archipelago (2015–17). Three primary schools and five teachers collaborated with the researcher to extend their classrooms through a Virtual Learning Environment (Fronter, Blackboard Collaborate). Data were analysed with the *theory of practice architectures*. The schools were part of complex arrangements on several levels that had implications for the success of the remote teaching initiative: classroom level (e.g. digital competence), school level (e.g. joint teacher positions, faculty support) and regional level (e.g. school transport, relevant digital infrastructure).

Keywords: primary school; remote teaching; school collaboration; Virtual Learning Environments; participatory action research

Introduction

Distance education is gaining interest around the world although it is mainly offered to students in higher education, and research on younger distance students is scant (Barbour 2013; Means, Bakia, and Murphy 2014; Toppin and Toppin 2016). This feature presents implications from a Finnish project (2015–17) where five primary school teachers developed their teaching practice in a Virtual Learning Environment. The small and rural schools wanted to address two main problems: a lack of teachers because of the low number of pupils; therefore, full-time employees were rare and short-term contracts had led to a high level of employee turnover. The participants imagined distance education as one solution to extend the classrooms through Virtual Learning Environments.

In primary school, a blended form of distance education, sometimes called remote teaching, is required by law in Finland (Lag om grundläggande utbildning 2017). The underaged pupils take part in the distance education in their school where a teacher or an adult supervises and supports them, while the teacher at distance is responsible for teaching the pupils. The three schools in this study are small in the sense they consist of twenty to forty students (aged 7–16) and three to ten fully employed teachers. According to Kalaoja and Pietarinen (2009, 110), thirty percent of Finnish primary schools are considered small with 'three or four permanent teachers and teaching groups' and a student population below 100. Compared to, for example, forty percent in Austria and Switzerland (Raggl 2015), thirty percent in England (Hargreaves 2009) and thirty eight percent in Scotland (Dowling 2009).

There is no shared definition of Virtual Learning Environments (Johannesen, Erstad, and Habib 2012). In this feature, they are considered to be interactive, communicative, collaborative, and digital environments. They may include social media, virtual worlds and Learning Management Systems (LMS) supporting social interactions between teacher-student and student-student (Annetta, Folta, and Klesath 2010; Hilli 2016). According to Johannesen *et al.* (2012), Virtual Learning Environments challenge the agency of teachers as digital tools and platforms sometimes dictate what can be done, this may lead to teachers' resistance if they are not in line with their pedagogical beliefs. In this project, the schools used a LMS, *Frontier*, and the integrated video conferencing system, *Blackboard Collaborate*. *Frontier* had been part of the digital infrastructure in the schools for several years and it was considered to support interactive interactions between students and teachers.

The theory of practice architectures was used as a theoretical and analytical framework to study the distance teaching practices developed by the teachers. It is a theory and a methodological approach to explore and transform the practice of teachers (Mahon *et al.* 2017). According to Mahon *et al.*, practice is 'a socially established cooperative human activity involving utterances and forms of understanding (sayings), modes of actions (doings), and ways in which people relate to one another and the world (relatings)'. Sayings, doings and relatings are closely connected and they affect one another.

In a site of practice, such as a school, different arrangements exist simultaneously; *cultural-discursive*, *material-economic* and *social-political arrangements* (Kemmis *et al.* 2014, 32). They are in turn closely related to activities that practitioners take part in. Discourses used in and about a practice make certain sayings possible or acceptable (cultural-discursive arrangements). The physical space and available

resources, or lack thereof, are arrangements influencing the practice of a teacher (material-economic arrangements). In this case, the Virtual Learning Environment enabled certain features that the teachers appreciated (e.g., breakout-rooms). Finally, there are several social aspects that affect practice, organizational rules, hierarchies, and relationships that affect the practice (social-political arrangements) (Kemmis *et al.* 2014)

Teaching entails many relationships, which make it socially and ethically informed; these relationships form the culture of the school and the work of the teacher. Changing practice means changing these arrangements often simultaneously (Kemmis 2010). Changing practice architectures means respecting and involving practitioners' visions and providing them with time and space for change to happen (Mahon *et al.* 2017).

The participatory action research project

Two empirical articles have been published (Hilli, 2018; Hilli, 2019) on the *participatory action research project*. Participatory action research was chosen as the teachers did not want to take on the role as teacher-researchers. The project was designed according to the problems the teachers faced in their practice (see the introduction) and the researcher supported them didactically and scientifically to take new actions in the Virtual Learning Environment (Kemmis *et al.* 2014). The data were discussions with all five teachers and the project leader, individual interviews with each teacher (one in the beginning of the project and one at the end) and private video blogs recorded by the teachers after they had taught online.

All five teachers were subject-teachers and they had chosen to live and work in the archipelago because of the small schools and closeness to the pupils and colleagues. Three teachers also worked as school leaders. They had taken part in several training sessions on digital technology and they knew each other from previous collaboration initiated by themselves and by the schools. The analysis took place in two stages; first, a thematic analysis was done, and, second, discourses identified in the data were further examined through the theory of practice architectures and the cultural–discursive, material–economic and social–political conditions influencing the practice of teachers (Mahon *et al.* 2017).

Discussion

The practice architectures (Mahon *et al.* 2017) at the three schools enabled and constrained the virtual collaboration between teachers on three levels; classroom, school, and regional level. Previous school and teacher collaboration enabled this study and the teachers appreciated the collaboration as it reduced *professional isolation*. The teacher collaboration inspired *new teaching practices* (formative assessment, cross-school student collaboration). The teachers used tools they knew to structure the lessons (powerpoint presentations) and they wanted to include interactive and collaborative methods with new digital tools (breakout rooms, interactive white boards, blogs).

Constraining *material-economic arrangements* with the Virtual Learning Environment were a lack of digital competence among most teachers and technical issues with connecting the classrooms. The teachers did not use the Virtual Learning Environment (Fronter, Blackboard Collaborate) in their

everyday practice. Early on the teachers requested digital support which the project provided. However, previous teaching practices influenced how they taught online (Hilli 2019). Because the teachers worked in small schools, they felt Fronter was not important to communicate with the few students and it was easier to communicate with parents by phone or email. The implications are in line with previous research that Virtual Learning Environments challenge the agency of teacher and that the system used needs to enable relevant teaching practices to become part of the everyday practice of teachers (cf Johannesen *et al.* 2012).

Constraining *social-political* and *cultural-discursive arrangements* were a lack of joint schedules, allocated time for collaboration and a lack of faculty support. These implications are consistent with previous research highlighting the importance of institutional support and time for teacher collaboration (Draper *et al.* 2011). The school transport in the archipelago meant the schools planned their schedule according to the ferry schedules making the cross-school collaboration difficult when joint time slots were hard to find. Joint schedules in the three schools were important arrangements to promote a similar initiative in the future.

Unclear expectations on the *regional level* left the teachers wondering what the long-term purpose with the remote teaching initiative was. The teachers described a looming threat that distance education would in fact mean that even less teachers would be employed, and instead more teacher assistants would supervise the pupils. The teachers were strongly against this hypothetical arrangement; they supported *material-economic arrangements* to extend the classrooms so pupils could meet each other socially and give pupils access to competent teachers and more subjects.

The analysis confirmed that the school leaders played a crucial role to provide conditions on *school level* (e.g., schedules, allocated time) to enable teachers to collaborate on a *classroom level*. Cross-school collaboration needs resources (e.g., teaching positions) and infrastructure (e.g., transportation, digital systems) requiring collaboration on a *regional level*. Regional investments in relevant Virtual Learning Environments for small and rural schools can further cross-school collaboration.

For the teachers, this was a time-consuming and challenging project. The study implies that the small schools were sensitive ecological systems easily disrupted if teachers were absent or required to take part in projects (Mahon *et al.* 2017). *Social-political arrangements* in the small schools also offered flexible solutions to borrow pupils from each other and switch lesson slots on short notice (Hilli 2018). When given the time and resources to reflect there was a transformative force among the teachers and they saw the possibilities of distance education in their specific context. In a long-term perspective, cross-school collaboration could prove an empowering solution for rural areas.

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