

Networked Leadership Roles for School Leaders' Work with Schools' Digitalization: A Comparative Investigation

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Abstract

School leaders are responsible for creating the right conditions for schools and, through dialogue, understanding schools' needs and prerequisites, distributing resources, and following up on the schools' development. School leaders are also important for supporting schools in realizing a top-down policy. One example of such policy is the digitalization policy aimed at implementing digital technologies in teaching, where strong school leaders is necessary. Thus, leadership is a crucial ingredient for a good digitalization process in schools. However, there is little written about school leaders' practice. Further, school leaders' practice may contain more networked leadership despite the fact that they often assumed a top-down leadership role, which would be especially clear when viewed through a networked learning perspective. Further, different countries have different school systems where the school leaders may be referred to by different names in their roles for supporting the schools.

A common area in need of support is the digitalization of schools. Students may not get the skills they need in the future as challenges to ensure the advancement is enacted continue to broaden. Thus, it may be interesting to delve deeper into the structures of countries that may differ in general structure for school systems. In conjunction with a networked collaboration between the University of Brazil and Mid Sweden University, connections between the school systems in both countries will be made in this paper to distinguish parts of their leadership strategy for the digitalization of schools. Leadership within schools is closely connected to the pedagogical implementation of technologies. In one dimension of school leadership related to digitalization, there exists a notable aspect known as the networked dimension, which is intricately linked to assessment policies and roles associated with ICT. Given the assumption for the networked dimension, this paper is written for two primary purposes. The first purpose is to investigate the networked leadership dimension according to various leadership roles for school leaders' digitalization work. The second purpose is to prepare a comparative study of the school systems of Brazil and Sweden by reviewing literature that analyses these regions.

Thus, in this short paper, we assume that school leaders' practice when compared across two countries different in size from a networked leadership perspective may comprise a research gap, indicating the relevancy of a literature review investigation of this gap.

Keywords

Comparative study, Digitalization, Digital technology, Networked leadership, School system.

Research Context

Digitalization is not something new; however, a digital, networked transformation is happening worldwide in the 2020s. Digital technologies in education create challenges and opportunities for leaders and teachers. Leaders are responsible for expanding the access to and application of digital technologies in teaching, creating opportunities for enhancing teaching quality. To meet this digital change, the Swedish Government has presented a digital policy for society, including the Swedish educational system. The aim of the Swedish digital policy is to be a global leader in using the potential of digital technologies. Digitalization of the Swedish educational system was established with the national action plan for digitalizing the Swedish educational system, Skoldigiplan (Swedish Association of Local Authorities and Regions, 2019). Expanding and using digital technologies in schools is a political decision (Grönlund, 2014) and one demand or challenge in the educational system (Salavati, 2016). It is not only a digital technology issue; it is about what digital technologies have been used in and its effects on learning and teaching. It is a question of managing that change to enable teachers to support children and students in their knowledge development and, in this way, increase results in school. According to Masters (2018, p. 121), governments in large regions have become more involved with "the education of the nation's children" by introducing new curricula since the 2010s. However, the researcher points out that students' results are declining, and the students do not get the skills they need in the future, "the challenge is now to ensure that this advancement is enacted and that children learn to use digital technologies in deep and meaningful ways" (Masters, 2018, p.

125). Large-scale initiatives that aim to implement such enactment have not always left the intended results either. There are limited instances of noticeable improvements in students' educational performance resulting from these initiatives (Algozzine et al., 2021).

In contrast to Sweden's small regional and inhabitant size, Brazil is large and consists of over twenty times the Swedish population. Such differences in aspects such as networked connectivity may be detrimental to evaluating leadership solutions for organizational systems (West, 2018). Brazil is a country with challenges, for example, the digital divide related to infrastructure and lack of coordination for the digitalization process (Filgueiras et al., 2019). There are clear signs of positive changes in socio-economic trends in Brazil over the past decade. These include a higher level of education, greater employment opportunities, and increased urbanization among the population. Additionally, there has been a substantial rise in internet access and mobile phone usage within the timeframe under consideration in relation to the adoption of digital technologies (Nishijima et al., 2017).

Agélii Genlott (2020, p. 17) suggests that digital technologies are developing rapidly, and this leads to leadership changes in teaching and learning, which leads to a need for "well-grounded incentives for the use of digital technologies in daily practice, improved digital competencies, positive social systems and networks and a supportive organization promoting long-term improvement". Further, that digitalization processes are "limited to implementation of digital technologies without pedagogical and organizational change" (Pettersson, 2021, p. 187).

School leaders are responsible for creating the right conditions for the schools through dialogue to understand schools' needs and prerequisites, distribute resources, and follow up on the schools' development. According to Kamyliis et al. (2017, p. 15), one of the three important keys to embedding technological innovation into teaching is "strong school leaders, who are assumed to establish the school-level conditions" (p. 15). Leadership is a crucial ingredient for good digitalization work.

Ottestad (2013, p. 108) stresses that "school leadership is strongly associated with the pedagogical use of technologies in schools". The researcher points out three dimensions of school leadership for digital technologies, namely distributed, pedagogical, and transformational leadership. Further, the researcher connects four indicators to the dimensions of school leadership for digital technologies. Distributed leadership is linked to two indicators, namely digital practice and assessment and roles with digital technologies. Transformational leadership is linked to digital technologies' maturity and leadership for collaboration. Pedagogical leadership is linked to digital technologies' maturity, assessment, and roles with digital technologies. In regard to the different leadership dimensions, school leaders are especially important for supporting schools to realize a top-down policy. However, there is little written about school leaders' practice. In educational research, the concept of distributed leadership has received significant attention in evolving trends and practices in leadership within schools (Harris & Spillane, 2008). The concept of distributed leadership has gained greater popularity and has become a widely adopted model for school leadership (Hickey et al., 2022). Further, school leaders' practice may contain more distributed leadership despite their often-assumed top-down leadership role, which potentially may be especially clear when viewed through a networked learning perspective (Gourlay et al., 2021).

School leadership is often considered crucial to individual schools' success and educational change (Bryk et al., 2010). Liljenberg (2015, p. 152) argues that "leadership is considered to be significant for creating a developing and learning school organisation". Even parts of the Swedish government mean that digitalization in the educational system is a change project, not a digitalization project (The Swedish Research Council, 2019). It requires leadership to succeed, and "few studies have conceptualized the digitalization process via an organizational and multilevel perspective on change and transformation" (Pettersson, 2021, p. 188). Teachers and other stakeholders in the educational system may understand the school leaders' decisions.

The school development work should come from the local school's needs, such as important features of the context, location, and school's trajectory for work with school improvement (Hallinger & Heck, 2011). The researchers mean that an important factor for change in the school's possibility to improve is strong learning-directed, networked leadership. Professionalism is an important key to building capacity, and according to Hopkins (2017, p. 18), "building professional capacity implies the adoption of authentic school improvement principles and strategies that raise standards and emancipate at the same time". Hall et al. (2017, p. 327) mean that the chain of command in the educational system is characterized by a hierarchical structure. They stress that "with one school leader and a varying number of teachers, due to a strong focus on one person, leadership is usually not shared". However, Liljenberg (2015, p. 152) argues that "leadership is considered to be significant for

creating a developing and learning school organisation". Leithwood et al. (2008) point out that open-mindedness and a desire to learn from others are important for successful school leadership, which is important to lead digitalization in the educational system. Thus, it may be interesting to delve deeper into the structures of countries that may differ in general structure for school systems (Elmore, 2004) and to investigate the educational change (Fullan, 2007).

Aims and Objectives

The aim of this paper is to explore and analyze the nature of a comparative literature review that investigates how school leaders in Brazil and Sweden, in their networked leadership roles, are working to implement digital technologies in their respective schools.

- How, in their networked leadership roles, do school leaders in Brazil and Sweden approach the implementation of digitalization in their schools, and what are the key similarities and differences in their strategies and practices?
- What aspects, including the dynamics of their networked leadership roles, influence the effectiveness of school leaders' efforts to implement digital technologies in schools in Brazil and Sweden, and how do these aspects contribute to the overall success of digitalization initiatives in each context?

Review method

The project is currently in the first stage, but we aim to do a systematic literature review (Petticrew & Roberts, 2008) and follow the standard methodology for this (Tranfield et al., 2003). We will also use the software ATLAS.ti for coding and analysis, which has proven its potential in similar previous research (Soratto et al., 2020). However, we are still testing out keywords for this work-in-progress project.

Plans for analysis and paper selection

The paper selection of journal articles written in English, Swedish, Spanish, and Portuguese (and thus, specific keywords) will be made on three basic criteria:

1. Related to the topic of distributed leadership with keywords such as "collaborative-, cooperative-, distributed-, networked leadership",
2. Analyze research with empirical data collected in Brazil and Sweden with keywords such as "developing countries and industrialized countries, large countries and small countries",
3. Discuss topics related to digitalization and digital technologies.

Included articles will be analyzed with respect to how they discuss leadership through different variables, such as how they relate to the different regional sizes of the countries and economic aspects (for example, considering the difference in GDP between Brazil and Sweden).

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