

Regional Educational Development Research and School Improvement: A Systematic Literature Review of Research

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Abstract. With the background of regional educational problems in some counties in Sweden, in the form of lower educational level and school achievements an integrative and systematic literature review (SLR) has been implemented in order to examine regional educational development in combination with school development worldwide during the last 50 years. The literature review shows an internationally sprawling view of the content and object of the study as well as a few international studies on the relationship between regional development and school improvement in mainstream school. Different regions, countries, and continents show various problems within this focus. The study shows different aspects; networks and knowledge-based clusters as guidelines; political decentralization and its repercussions on student learning; technical solutions; the importance of vocational schools in rural areas; tax reduction to compensate rural areas; the importance of a majority/national language and rural versus urban values. Regional development policies aimed at stimulating regional industrial competitiveness and innovativeness, educational attainment, and creative occupations emphasize that creative professionals are strongly related to regional income. The most important implication common worldwide, are concerns pertaining to urbanization, depopulation of rural areas, the need to highlight regional development factors, and a belief in education, especially involving mainstream schools.

Keywords: literature review, mainstream schools, regional educational development, school improvement.

Introduction

Two counties in Mid-Sweden, Jämtland and Västernorrland, have identified regional educational problems. These counties have lower educational levels and school achievements compared to other parts of Sweden (Skolverket, 2014) and have a relatively large proportion of an out-migration of well-educated individuals from the region (Statistiska centralbyrån, 2014). The national school results have, in some parts of the region, steadily declined for nine years; other regional areas also need to be improved (Skolverket, 2014). An integrative and

systematic literature review (SLR) concerning Swedish (and Nordic) research has been carried out in order to get an overall picture of the best possible knowledge in this area. This review showed that there has been little debate, and the sources were mostly descriptive studies. In addition, one-third of the sources were official reports. The discussions, debates, and investments pertaining to universities and education programs' role in the Swedish rural areas began in the mid-1980s. Even then, the role of universities for rural and Sweden's prosperity was discussed in light of increased global competition. There are not any research studies or debates to discuss the grade levels through the whole school system. Studies about school improvement and the impacts on students and regional development are also missing. Young people's and women's voices are absent (Boström, 2015). The concern for the lack of research on 'regional youth' is raised by (Svensson, 2006), with the words, *"When rural areas are studied, the focus is outside the adolescent themes and the adolescents studied, the focus is outside the rural perspective"* (p. 24). A key question for a practitioner teaching in school or higher education today could be as follows: How can we make sense of current regional educational research and debates in order to implement the results into teaching and courses? (Svensson, 2006). In other words, there is a research gap regarding the role of school (mainstream) and regional development.

The purpose of this overview is therefore to gather international knowledge about the object of knowledge. The aim of the study was to deepen the knowledge of previous research on regional educational development and school improvement worldwide as well as to capture and describe the phenomenon of variation in different contexts.

Previous Research

The past decade may have witnessed considerable expansion and development within the field of regional educational research (From & Olofsson, 2014). Good education systems, ranging from preschools to universities, are vital for development. This mutual relationship is described and emphasizes that initiatives in the classroom or department are influenced by the surrounding context of the school, the district, and the nation (Hernandez & Goodson, 2010; Veugelers & Ziljsra, 2010). It is important not only from a regional perspective, but also in a national and international context.

The importance of higher education for a region's growth has increasingly attracted international attention in many countries, including Russia, Britain, Canada, Turkey, China, and Australia, and on all continents. If countries want to be globally competitive, regional innovation systems need to be strengthened. In order to achieve this, cooperation between higher educational institutions, public authorities, and the business sector becomes vital. Regional engagement, academic excellence, and research are complementary activities. In order to allow innovative efforts in peripheral regions to be as productive as they are in core areas, they need to be complemented by huge investments and human capital (Crescenzi, 2005). The role of human capital and the creative class, as well as technology factors, sharpen regional development. For regions to compete, evolve, and survive, education is crucial, and there are clear links between

education and regional development (From & Olofsson, 2014). A further aspect is the concept of regional management, which seems to play an important role in developing regional headquarters into dynamic competence centers (Ambos & Schlegelmilch, 2010).

Even in Sweden, the regional educational development in cooperation with academic attention is problematized and researched (e.g., Persson et al., 2003). The majority of the research in Sweden during the last 40 years has focused on higher education, regional projects, and collaboration between industries and universities. Only a few studies have touched on the younger generation's situation (Boström, 2015). An attempt to connect to regional development in the school context is the research project "The best regional education systems in the world," which is the partnership of one university, huge companies, and three selected schools in the region of Mid-Sweden. The intent behind the project is to make it possible for a region like Mid-Sweden to develop in a positive way for citizens companies, and the public sector, and the underlying assumption is that the regional educational system needs to contribute to regional changes regarding economic growth as well as the public sector (Mittuniversitetet, 2012). An important background factor is that these countries have lower educational levels and school achievements compared with other parts of Sweden, and they have a relatively large proportion of out-migration of well-educated individuals from the region. Therefore, the aim of this study is to identify regional educational-development research and regional school improvements across a variety of contexts through a systematic review of associated literature published between 1983 and 2014. Such a review contextualizes and is an international background for the research project. The concepts in the study are based on research into both regional educational development and regional school development

By virtue of the foregoing, the purpose of this study was, from an international perspective, to identify and classify the published research on regional educational development and school improvements. The objectives were to (a) identify patterns and trends in the research, (b) describe and compare the published findings, and (c) point to a future research agenda.

Theoretical Framework

The study departs from regional educational development and school improvement theory. Regional educational development is a useful analytical tool as it can mirror the relation between regional development and education. There are correlations between level of education and regional development. To succeed in regional development, a highly skilled workforce is required where education is a cornerstone (e.g. Florida, Mellander & Stolarick, 2010; Tomaney & Wray, 2011). Universities were perceived of utmost importance with regard to regional development (Westlund, 2004), but regional development is also a social change and transformation (Berglund & Johansson, 2007). To go from stability and recognition to the new and unfamiliar is described in the following words: "It is the combination of the new and the traditional providing innovative opportunities for regional development and economic growth, which requires interaction and communication" (From & Olofsson, 2013, p. 35).

The core of the definition of school improvement is described as “... a systematic, on-going, and supported efforts to make principals and teachers in schools more capable of achieving the national and local objectives in the school” (Björkman, 2008, p. 33), with references to P. Dalin, 1994, and W. van Velzen et al., 1985, and implies a particular form of changes in a certain direction to make something better. Goodland, 1994, believes that school improvement needs a focus as a whole in order to be successful. Culture and structure both have to be consciously processed in order to achieve effective and sustainable change (Hargreaves & Fink, 2008). School improvement theory must, according Höög and Johansson, 2014, bear cornerstones and different focuses concerning structure, culture, processes, and leadership. These elements collaborate, interact, and have repercussions on each other in order to change and adapt the structure and long term consistent processes which in turn affect the school’s leadership by providing dynamics and conflict.

In summary, the theoretical frameworks are set around school improvement comprising structure in the context of regional development, including culture, processes, and leadership, which requires communication and interaction with both new and traditional activities.

Aim and Methods

The aim of this study was to deepen the knowledge of previous research on regional educational development and school improvements worldwide. This study is based on an integrative and systematic literature review (SLR), inspired by Polit and Beck’s (2008) model for a qualitative, thematic, content analysis. Integrative literature reviews offer a means for researchers to find and assess what is known about a particular topic, with the aim of finding a solution to a particular problem or suggesting directions for future research. It is described as being the broadest category of research reviews, combining the findings of a range of different research designs including those of qualitative and quantitative studies (Evans & Waring, 2012).

To analyze the contents of the various texts, a descriptive content analysis was performed. The contents of the results of the studies were examined methodically and progressively while interpreting texts to find prevalent phenomena. Distinctive categories were identified and then narrowed down to sub-categories. Traditional content analyses can be divided into three steps: selection of focus texts, encoding of the texts, and interpretation of the results (Auhiva, 2008). The situational context was taken into account, so the “maximum variation sampling” was achieved (Franzosi, 2008). Maintaining scientific integrity involves great attention to validity during the phase of the integrative review, and not defining the operational definitions too narrowly or too broadly. The reviewer must balance the definitions and methods review constantly during the research process. The integrative literature review has many benefits to the scholarly reviewer, such as identifying gaps in current research and the need for future research, bridging related areas of work, and bringing focus to central issues in an area (Cooper, 1998). A thematic integrative study design was chosen to obtain a holistic understanding of the subject. This

approach, in accordance with the method, allows researchers to combine data from theoretical literature as well as empirical literature (Whittemore & Knafl, 2005), which also makes the analysis more complex and difficult. The purpose could therefore be answered by a wider range of sources.

Strategy and Inclusion Criteria

Employing progressively detailed inclusion criteria, the systematic review of the literature involved multiple phases: an initial identification of potential studies via an advanced search of PRIMO; subsequent screening of abstracts and titles; hand searching of seven books, in-reference lists, and bibliographies of all retrieved papers, 15 book chapters, and five reports, ten books, five dissertations, ten debate articles on the theme; and an in-depth review of 190 full articles along with a detailed thematic analysis of 33 full articles, five chapters, one dissertation, two reports and 7 books. An automated advanced search of this database was conducted using increasingly refined search criteria to identify those potentially relevant studies for use in the review (see Figure 1).

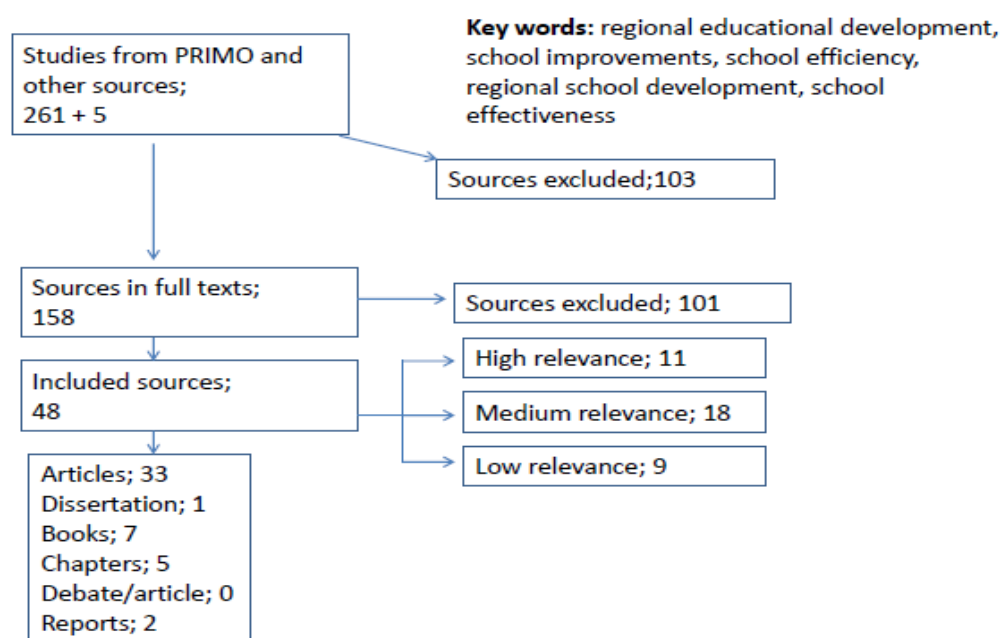


Figure 1. Summary of Method of Review

Keywords used were: regional educational development*, school improvement*, school efficiency*, regional school development*, and school effectiveness*, with different combinations. The literature search was limited to 1980–2014 and to publications written in English. To contextualize the findings of the review, an overview of the current debates and conclusions within regional educational development and school improvement internationally were provided, including a consideration of the relationships between regions, education, school improvements, and success factors. The authors identified applicable articles and verified their inclusion in the search results in order to ensure the sensitivity of the search strategy. References from included studies were also assessed.

Structured around two levels of analysis, a summary and discussion of the outcomes of the review are presented. This involved a general overview concerning the distribution; research foci; and associated theoretical framework, methods, and design of the articles reviewed; followed by a thematic analysis of regional educational development research in relation to school improvement from an international perspective. The sources were reviewed and evaluated concerning content, scientific quality and relevance. Data processing, quality, sorting, categorization, and examination of the items were made using assessment documentation. Finally, the content was thematized.

Results and Analysis

This section outlines the outcomes of the review. It is structured around two levels of analysis: distribution of themes, years, methodological approaches, assessed relevance, and the sources and languages of the articles reviewed, and was followed by a thematic analysis and discussion of the data in relation to the nature of an impact on regional educational development and school improvement. Only 48 articles remained for the analysis. The reason for this may be that regional developments in mainstream school do not have a specific focus worldwide.

Distribution

Figure 1, above, shows the 48 sources that were included in the review and Table 1, below, specifies the themes. There were six themes: Political aspects, Social Capital & Networks, Higher education, General Education, Values, Languages & Cultures, and one named "Others." The sources were categorized as one entity.

Table 1. Distribution of themes among the sources.

Themes	N = 48	Percent
Politics	14	29,2%
Networks & Social Capital	8	16,7%
Higher Education	7	14,6%
General Education	6	12,5%
Values	5	10,4%
Languages & Cultural	4	8,3%
Others	4	8,3%

Two dominant themes are political aspects and social capital and networks (almost half of the content). The theme "Others" are technical solutions, women's roles and dichotomization, major universities, and small colleges.

The majority of the sources were published from 2001 and forward, which were a majority of the articles (see Table 2). In other words, interest in the subject has grown rapidly in the last fifteen years.

Table 2. Distribution of 48 sources reviewed by year.

Years	Sources N=48	Percent
1980-1985	1	2.1%
1986-1990	0	
1991-1995	2	4.2%
1996-2000	4	8.3%
2001-2005	10	20,8%
2006-2010	20	41,7%
2011-	11	22,9%

The geographic distribution shows that almost half of all the sources are published in European countries, and approximately one-fourth come from the US/Canada (see Table 3). This means that the research has been conducted in Western countries.

Table 3. Continents among the sources.

Continent	Sources N= 48	Percent
Europe	25	52,1%
North America	11	22,8%
Asia	5	10,4%
Africa	3	6.3%
South America	2	4,2%
Australia	1	2,1%
International	1	2,1%

Thus, this area of research seems to be a typical western phenomenon. Concerning methodology approach, there is an almost total domination of qualitative approaches, 54.2% (Table 4) followed by quantitative studies (27.1%). The studies which do not clearly have a methodological approach usually have a descriptive, historical approach.

Table 4: Distribution of methodological approach.

Methodological approach	Sources N= 48	Percent
Qualitative Approaches	26	54.2 %
Mixed Method Design	4	8.3
Quantitative Approaches	13	27.1 %
Not Reported/Unclear	5	14.4

The qualitative approaches are highly varied from case studies to focus group interviews and observations. A small percentage uses quantitative approaches or mixed methods. When it comes to data collecting strategies, most of the sources have one strategy, but some have 2 to 4 strategies. The strategies are many and various, from video-taping to self-assessment reports to content analyses. We have not been able to classify them, as they are too sprawling. There are also problems with being able to classify analysis levels.

Thematic Analysis

In this SLR, it is possible to observe a lack of empirical research involving the combination of regional educational development and school improvement, especially for mainstream schools (cf. Boström 2015). Research is published, but it focuses mostly on one aspect (school improvement) or the other (regional educational development) or each, but not so much the combination. Political aspects seem to be the most dominant theme with it described in almost one-fourth of the contents. The content of policy moves at different levels, political control, labor market reforms, decentralization, tax reduction to compensate rural areas, and ideological debates about the central cities versus regions. However, there are no concrete descriptions or visions of how the different proposals could have repercussions on school improvement. The quote below will illustrate the general approach:

Education today is characterized by two opposite tendencies: –a centripetal tendency ... a centrifugal tendency ... these tendencies map out the main vectors of the development of innovative activity in regional systems of education. (Larina, 2006, p. 31)

Another focus is Social Capital & Networks, preferably in combination with the development of a “creative class” and a diversity that can develop business ideas and promote entrepreneurial learning. The importance of interaction between people trained in creative professions so that they can create new products/services and generate jobs, new technology, and tolerance for the regions as described by Florida et al. (2010): “Canadian regional development is shaped by the 3Ts of technology, talent, and tolerance. Talent in the form of human capital and the creative class is strongly associated with regional income” (p. 31).

The power of building networks within the regions is highlighted as an opportunity to recruit students of different origins and to raise and support multi-cultural awareness and social support. Thus, capacity, knowledge, new ideas, and norms will be created (Cheong, Wing, & Alan, 2009). Through building networks within the region, there are opportunities to recruit students of different origins, and to raise and support multi-cultural awareness and social support. Thus, capacity, knowledge, new ideas, and norms that are created (Cheong, Wing & Yen, 2010) and socio-economic cohesion may be facilitated (Pachura, 2010). Cluster strategies can also act as a bridge between the political rhetoric and the observed reality (Doloreux & Shearmur, 2006).

Higher education is also mentioned as a cornerstone in the study object, but more in connection with the importance of new research. General education is also mentioned as important, and more accurately, the quality of schools (Ava-

los, 1996) and opportunities available through curricula (Rahimia et al., 2010). Values are about the mental images that prevail and who prevail. Dichotomization of urban and rural standards is evident above all in Swedish Research (Svensson 2006; 2008; 2014). Cultural and linguistic aspects in certain regions are language-related changes that can enhance or hinder regional development (Daoud, 2010), and attitudes, as well as behaviors that may influence or be influenced by culture (Karahanna, Evaristo, & Srite, 2005), such as settings for the native language in school (Huguet & Llurda, 2001).

Conclusions

In summary, what appear to be common worldwide is the concerns pertaining to urbanization, depopulation of rural areas; the need to highlight regional development factors; as well as a belief in education. One result of this study is that there are surprisingly few international studies on the relationship between regional development and school improvement. Approximately 70% of all the sources are published in Western countries, Europe and the USA/Canada. This does not mean that the problems are greater there than in the rest of the world. Perhaps instead, there are more research resources in these countries compared to the rest of the world. The literature review shows that the study object was observed more and more during the millennium. This may indicate that it will be noticed increasingly more henceforth. More than half of all resources have a qualitative approach, which means that the texts are descriptive. Needed are the long-term, consistent empirical studies – preferably interventions studies – with a mixed methods design.

Different regions, countries, and continents show various problems within this focus. For example, regional educational development does not mean the same thing in West Africa compared to northern Canada. Countries and continents have different economic, structural, and cultural conditions and orientations. Education in this context typically refers to higher education, while factors that involve mainstream schools are not illustrated to any greater extent.

The literature review shows an internationally sprawling view of the content and object of this study. It involves very different aspects, such as:

- *Political issues*, such as policy (Mc Dade & Spring, 2005), ideological (Cf Laurina, 2006; Quiang, 2011) or economic governance, the effects of decentralization (Toi, 2010) and its repercussions on schools and student learning and ideological solutions;
- *Social capitals and network structures* (Pachura, 2010), such as knowledge-based clusters as a guideline for regional development policies aimed at stimulating regional industrial competitiveness and innovativeness, with a focus on the importance to create educational achievement and creative occupations (Florida et al., 2010) and emphasize that creative professionals are strongly related to regional income.
- *Educational focus*, mainly the connections between regions and universities.
- *Cultural and linguistic aspects and values within society and school systems*. Particularly interesting for the project V-brus is dichotomization between urban and rural values (Svensson 2006; 2010; 2013)

Regarding the Swedish research in relation to international research, there are three similarities, but otherwise they have pretty big differences. The emphasis in education connected to regional development is on higher education and not so much concerned with mainstream school. There are concerns about urbanization and beliefs in education both worldwide and in Sweden. The Swedish review shows examples of regional initiatives. The differences are that there is much more emphasis on different cultural and political aspects from an international perspective. The international literature is the national contingent, the Swedish is more regionally-focused, and the international review shows the importance of network clusters and the ability to inspire innovation through a “new” creative class. If this new creative class should be created, developed, and have influence in the regions, a political strong will is required for school improvement in combination with regional development and research on a broad front. But from another perspective one might also ask about the logics and rurality and political rhetoric about the Swedish North (cf Nilsson & Lundgren, 2015).

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