Educational leadership regarding municipal school support services in

Iceland

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Abstract

The purpose of this research is to shed light on the educational leadership practices regarding school support services at the municipal level in Iceland from the point of view of actors from both municipal and school levels. Furthermore, to explain how those views are shaped by the structural arrangements and human resources of the services, population density, and geographical location. Leaders of municipal educational support services, preschool principals, and compulsory school principals responded to a questionnaire about practices regarding school support services. A framework of desirable leadership practices was used as an analytical tool to measure this leadership. The findings revealed that leadership practices regarding school support services match poorly with the leadership framework. Human resources are important elements of the leadership practices regarding the school support services in general, regarding the school support services. For that purpose, more engagement is needed in the development of professional capacity, and a focus on creating a shared understanding between the services and school principals.

Keywords: municipal educational leadership, leadership practices, school support services,

superintendents, school principals

Introduction

During recent decades, awareness has arisen of the importance of robust educational leadership at the middle layers of educational systems, such as on the district and municipality levels (Anderson and Young, 2018; Hargreaves and Shirley, 2020; Louis et al., 2010; Moos, Nihlfors et al., 2016). The prominence of district level leadership for student's achievement (Leithwood et al, 2019) and school improvement (George and Kincaid, 2008; Wilkinson et al., 2019) has been accounted for as well as for various professional support services to school leaders and teachers (Bantwini and Moorosi, 2018; Ikemoto et al., 2014; Louis et al., 2010). Furthermore, the importance that this leadership be proactive rather than reactive in nature is well established by Hargreaves and Shirley (2020).

Conditions of municipalities, and districts have been shown to be of significance for their capacity to provide support and educational leadership concerning their schools (Chingos et al., 2013; Fahle and Reardon, 2018; Forfang, 2020; Ghimire and Regmi, 2020; Louis et al., 2010). Rural areas are in a more vulnerable situation than urban areas for providing a robust foundation for education. They face unfavourable challenges such as difficulties in attracting and holding on to qualified teachers, insufficient funding, and geographical isolation (Hung et al., 2020; Nutter, 2021; Roscigno et al. 2006; Zhang and Cowen, 2009). Furthermore, there is a tendency that students in districts with lover population density perform worse than their counterparts in more urban areas (Zhang and Cowen, 2009). Underlying the complexity of the matter, structures in districts with larger numbers of schools are more hindering than in districts with fewer schools, influencing, among others, principal's efficacy (Landy, 2013; Nutter, 2021).

However, Leithwood et al. (2019) warn against focusing too much on factors outside the district and municipal control, such as district population and size. Instead, the focus should be on factors that they can control better. Examples of those would be building relationships and establishing a vision for their schools, focus on organizational improvement processes, professional development, and professional leadership of their own and the schools. In line with that, various researchers (Bantwini and Moorosi, 2018; Hargreaves and Shirley, 2020; George and Kincaid, 2008; Louis et al., 2010) claim that increased leadership capacity at the middle layer of educational systems is needed to provide necessary support and resources for the schools. They highlight the importance of human resources within the district, including attracting capable staff and developing its potentials (Duke, 2010; Moorosi and Bantwini, 2016).

In the United States, Honig (2012) revealed that a lack of professional capacity at school support services had a negative effect on principals' experience of the support provided. Furthermore, conflicting experiences of principals and district leaders of district support have been found to increase the risk of principal turnover and the breaking of mutual trust (Ikemoto et al., 2014). A recent study in Norway suggests that rural municipal leaders should focus on creating proximity between professional actors, both within the municipalities and with neighbouring

municipalities. To do so, they need to build systemic competence and a purposefully tailored infrastructure, that reinforce interactions and relationships with and between principals (Forfang, 2020). In line with that, Fullan and Quinn (2016) argue that for educational progress to occur there needs to be coherence between the different actors, not the least between different governance levels, where leadership at the district or municipal level is an important element.

In Iceland, middle level leadership, as explained above, is located at the municipal level and its main channel is through the school support services (Sigurðardóttir et al., 2018). The municipalities have been responsible for the school support services for the last 25 years but research on their leadership practices is sparse. "School support services" (*i. skólaþjónusta*, hereafter referred to as SSS) is a term used for various forms of professional support that municipalities are legally obliged to provide for school staff, students, and parents. The legislation allows municipalities to have considerable freedom how to arrange these services (Compulsory School Act no. 91/2008; Reglugerð nr. 444/2019). Consequently, there is a great variety in how SSS are structured. Responsible actors can be either superintendents (although other titles are also used) or municipal managers/mayors. Hereafter we refer to those actors as MES-leaders, standing for Municipal Educational School Support Services Leaders.

Iceland is sparsely populated with two third of the population located in the south-west and the rest settled around the island. Thus, municipalities differ in size, geographical conditions, and population density. This affects their capacity to operate the SSS and provide schools with sufficient professional support, especially in the more rural areas where appropriate human resources are hard to attract (Hansen and Jóhannsson, 2010; Sigþórsson, 2013; Svanbjörnsdóttir et al., 2021). Considering the above, the main purpose of this study is to shed light on educational leadership of SSS at the municipal level in Iceland. The exploration is based on the experiences and perspectives of MES-leaders and preschool- and compulsory school principals. The leadership practices are analysed according to structural arrangements of SSS, population density, geographical location, and human resources. The framework used to conceptualize and examine the leadership of SSS is that of desirable distributed leadership practices, as developed by Leithwood et al. (2008, 2020). In the following section the context for the study and the research question is further established.

Theoretical considerations – municipalities and school support services in Iceland The educational system in Iceland is similarly structured to the systems in the other Nordic countries. Preschool, the first school level in Iceland, is offered for children from the ages of 1–5. Although not mandatory, 95%–97% of children aged 2–5 attend preschools. The second level is a ten-year compulsory school for age 6–16. The third level is the upper secondary school, followed by the higher education level (Government of Iceland, n.d.). The state bears the ultimate responsibility for education at all levels. However, it is the responsibility of each municipality to run the preschools and compulsory schools, both professionally and financially, including the provision of SSS (Compulsory School Act. No. 91/2008; Preschool Act. No. 90/2008).

The biggest municipality is the capital, Reykjavík, the country's only city, which contains almost a third of Iceland's population. Due to its size, compared with any other municipality, the capital usually gets its own category in statistical calculations. Six other municipalities have more than 10,000 inhabitants, of which the most populated one has a little less than 30,000 inhabitants. Those municipalities are the only towns with more than 10,000 inhabitants. All other municipalities have less than 10,000 each. Thirty-nine municipalities have less than 1,000 inhabitants (Statistics Iceland, 2020) and most of those run schools with fewer than 100 students. Previously, while the state was responsible for the running of the compulsory school, the municipalities were distributed into eight regions/districts, each with its own local educational authority, under the auspices of the Ministry of Education, Science and Culture. Today, with municipal responsibility for preschools and compulsory schools, this previous regional distribution is often used for research purposes, such as when analysing attainment on national achievement tests and on international tests, such as PISA and TALIS.

The concept of functional urban area (FUA) is useful to capture population distribution and density in the Icelandic context. It constitutes an urban core, within which travel to work and daily migration can occur. The core must have a function of a national or regional importance and, in the Icelandic context, must consist of at least 15,000 inhabitants. As the concept is sensitive to population differences within countries the population of a core is higher in more highly inhabited countries (EPSON Monitoring Committee, 2005). In Iceland, only two areas correspond to this definition. One of those areas comprises five of the most populated

municipalities in the south-west part of Iceland. This includes the capital (Reykjavík) and reaches some 50–70 km south-west, north and east from its centre, including five out of the six municipalities with towns of more than 10.000 inhabitants. The other FUA lies in the northeast region of Iceland around Akureyri, the most populated municipality on the north coast. Other areas are rural with small towns and villages. Regardless of those different situations, all municipalities must fulfil the same legislative obligations regarding schooling and SSS.

According to legislation, SSS should include support for pupils and their parents both at the preschool and compulsory school levels, as well as professional support for school activities and their staff. The services "shall be aimed at strengthening schools as professional institutions that can solve most of the issues that arise in schoolwork and provide school staff with guidance and assistance in their work, as appropriate" (Reglugerð nr. 444/2019, article 2). As municipalities have freedom as to how they organize these services, some have established their own school offices with permanent staff, while others form regional councils with neighbouring municipalities to provide the services. Still other municipalities have no such agreements or buy services from a private entity. However, many municipalities have been struggling with how to organize these services and the regional councils have tended to fall apart. As the structures vary, so do those who oversee SSS (Sigbórsson, 2013). In municipalities with their own school office this is usually a superintendent, a civil servant that goes by different titles, but who is hired because of his or her expertise. As in the other Nordic countries, Icelandic superintendents have become the main professional agents providing educational leadership at the middle level of the educational system. They are often former teachers or principals. In municipalities running their own school offices, the superintendent is the senior manager of school principals in the organizational chart hierarchy. Superintendents oversee the finances of all the schools in the municipalities, run the school offices and are accountable to the school boards and the municipal councils. They are responsible for hiring the school office's permanent staff such as psychologists and educational consultants, and for hiring private entities as needed. Often, they have extended areas of responsibility, such as handling the municipality's social affairs.

In municipalities that have an agreement with a neighbouring area, the responsibility of the SSS might partly lie with the superintendent and partly with a municipal manager. In municipalities

with no superintendent or no arrangement with a school office, this responsibility stays with municipal managers.

Nordic research has portrayed the leadership of superintendents as a mediating role where they need both to work within the hierarchal system of leadership and exercise social network building; vertically within the hierarchy; and horizontally with their superintendent's peers and other outside stakeholders such as trade unions (Moos, Johansson et al., 2016; Paulsen et al., 2016). As pointed out by Paulsen et al. (2016), such collaboration does not occur as a result of the manager's request. Rather, superintendents need to focus on leadership activities such as building mutual understanding, positive relationships, reciprocal trust, and personal relations with actors involved. Municipal managers, however, are political agents and usually not specialists in education. They come and go after elections and tend to do politics alongside their professional work. Thus, their leadership is often distant from the actual schoolwork. However, they are meant to engage in long-term policy making, financing and administrative work in the field of education.

Icelandic studies have recently focused on how the SSS fulfil their legislative role to provide support to students and their parents and to the schools and their staff (Svanbjörnsdóttir et al., 2021; European Agency for Special Needs and Inclusive Education, 2017; Sigþórsson, 2013), and principals experience of municipality support (Sigurðardóttir, 2018). The findings indicate that municipalities are struggling with providing adequate services, especially in relation to professional development and support. Little is known about leadership practices of those responsible for SSS, such as superintendents or municipal managers. However, results of some of those studies (Svanbjörnsdóttir et al., 2021; Sigurðardóttir, 2018; Sigþórsson, 2013) indicate that municipalities and SSS leadership is weak. Moreover, municipal policies regarding SSS are unclear, resulting in the practices being determined by individual staff rather than by municipal policy (Svanbjörnsdóttir et al., 2021). The lack of sufficient SSS has partly been explained by the uneven access of specialists and other professionals between municipalities. Reykjavík and the other more densely populated areas are in a better position to hire adequate professionals within the SSS than those municipalities in sparsely populated areas, thus increasing the risk of failing to provide the necessary services (Hansen and Jóhannsson, 2010; Sigþórsson, 2013).

Mapping desirable leadership practices regarding municipal school support services The concept of leadership is ambiguous as researchers tend to define it in different ways, depending on their perspectives and the phenomena dealt with (Yukl, 2013). Louis et al. (2010) see leadership as having the two core functions of providing direction and exercising influence, or as Northouse (2016) notes, as a complex process with manifold dimensions "whereby an individual influences a group of individuals to achieve a common goal" (p. 6). What makes this complicated is that the functions of providing direction and exercising influence, can be performed differently, and that the different practices associated with the functions leading to numerous leadership models can have significant consequences for practice (Louis et al., 2010). Nevertheless, it is widely accepted that leadership that is distributive in nature and allows for leadership to flow between different individuals and within groups (Lambert, Zimmerman, and Gardner, 2016) has the potential to influence school practices in a positive way (Louis et al., 2010). Based on this general recognition, Leithwood et al. (2008) presented a framework (recently reviewed in Leithwood et al., 2020) that describes basic leadership practices that most successful leaders draw upon in a school context. They divide leadership practices into four main categories: setting directions, developing people, refining and aligning the organization, and improving teaching and learning programs (Leithwood et al., 2008, 2020). Each of these include three to five defining sub-practices that represent activities carried out by successful leaders (see table I).

Louis et al. (2010) applied these practices to district contexts in the United States. They suggested that students performed better in schools where district leaders and principals worked toward the leadership practices presented in the framework. The closer the district authorities matched the categories, the more principals' feelings of self-efficacy were lifted, the distributed leadership and professional development of teachers increased, and student performance at the school level improved. This leadership atmosphere provided conditions in which principals and teachers felt supported in their work. A key component in this positive milieu was the establishment of trust amongst all parties.

Main categories	Subcategories/ practices	Required leadership activities
Setting directions	 Building a shared vision Fostering the acceptance of group goals Creating high performance expectations Communicating the direction 	Creating a vision, defining a strategy, working towards shared ownership and integration into the school's culture to protect it against leader changes. Demonstrating outstanding practice, making clear it is expected from others, motivating people by encouraging, praising and explaining roles and purposes, planning and organizing the route. Work in this category builds on shared understanding and provides the necessary stimulation for participants to want to do their very best.
Developing people	 Providing individualized support and consideration Offering intellectual stimulation Modelling appropriate values and practices 	Try to understand people and work towards developing their skills. Try to stimulate teachers & staff to promote their knowledge & skills to better meet organizational aims. Contribute to staff commitment, capacity and flexibility to continue to gain knowledge and skills. Promote reflection, provide intellectual stimulation, guide and model preferred values & behaviour. Act like a facilitator, care about the professional and personal needs of people, provide individual support.
Refining & aligning the organization	 Building collaborative cultures Restructuring the organization to support collaboration Building relationships with families, communities Connecting the school & community 	How to restructure and re-culture the organization by establishing working conditions enabling teachers to make the most of their interests, commitments and capacities. Promote collaborative culture, networking and team building. Learn to manage conflict, build proactive relationships with parents and community, and connect the school to its broader environment. Provide consulting and delegate tasks and leadership.
Improve teaching & learning programs	 Staffing the program Providing instructional support Monitoring school activity Buffering staff from distractions to their work Aligning resources 	Lead efforts to improve teaching and learning programs. Create a supportive work environment for teachers to support institutional stability and strengthen the school. Find appropriate teachers for the teaching programs. Provide pedagogical support and professional development opportunities to promote teaching and learning. Monitor school activity. Protect teachers and other staff from distraction from their work.

Table I. Leadership practices carried out by successful leaders in the district context¹

Sigurðardóttir et al. (2018) argue that the role of municipalities in education, as described in Icelandic legislative documents, requires leadership that falls within the framework developed by Leithwood et al. (2008, 2020). Thus, the framework is used in this study as an analytical tool to evaluate leadership practices in the SSS domain. We argue that leadership of the school support service is shaped by the people who work there and their leadership practices. Therefore, the

¹ *Note*. Adapted from Leithwood et al. (2008, 2020).

leadership practices are explored from the view of MES-leaders and preschool and compulsory school principals. This is explored in relation to whether contextual and structural differences and human resources influence those practices. The following research question and subquestions guided the study:

- To what extent do leadership practices regarding the school support service in Iceland reflect Leithwood's et al. (2008, 2020) framework of leadership, based on the views of MES-leaders, preschool principals, and compulsory school principals?
 - To what extent do the views of MES-leaders and principals, differ about the leadership practices regarding these services?
 - To what extent do leadership practices differ, based on population density, geographical location, the structural arrangements of school support services, and human resources?

Method

This is a quantitative study. Data were collected by an online nationwide survey addressed to MES-leaders, preschool principals, and compulsory school principals. Permission to send out the survey was obtained from each municipality authority by e-mail. All 72 municipalities were contacted and 59 agreed to participate. Of the 13 municipality authorities that did not agree to participate, 12 were municipalities with fewer than 1,000 inhabitants and all were municipalities without a connection to a formal school office. Similarly, the response rate in municipalities without any superintendent and with fewer than 1,000 inhabitants was much lower than in other municipalities, meaning that this type of municipality is the least represented in the study. However, the responses represent municipalities that are responsible for 94% of all children attending preschool and compulsory school in Iceland. See Table II for the number of respondents and the response rate.

All participants received an e-mail explaining the purpose of the survey. They were informed that by completing it they agreed to participate and that refusing to participation would have no consequences. No identifiable information was requested in the survey. Participants were given three weeks to replay and were reminded three times via e-mail.

Participants	Acceptances	Respondents	Response rate
MES-leaders	45 ^a	36 ^b	80%
Compulsory school principals	170	101	59%
Preschool principals	224	130	58%
Total	439	267	61%

Table II. Overview of the participants and response rates in 59 municipalities

^a32 were superintendents and 13 were municipal managers (with no professional background in education); ^b32 superintendents and 4 municipal managers.

The Questionnaire

The questionnaire was developed within a bigger study of the settings and practices of SSS (Svanbjörnsdóttir et al., 2021). Two main sources were used to guide the content of the questions: a) the legislative framework for SSS in Iceland (Compulsory School Act No. 91/2008; Preschool Act No. 90/2008; Reglugerð nr. 444/2019) and b) the framework of Leithwood et al. (2008, 2020) on leadership, presented in Table I. Exploratory factor analysis was used to identify clusters of variables within each category in the framework that related to each other (Field, 2017). All the questions and statements used called for a response on a four-point ordinal rating scale, namely *strongly agree, agree, disagree*, or *strongly disagree*. Additionally, respondents could choose a *don't know* option. Scales were constructed by scoring each question on a scale from 0 (strongly disagree and don't know) to 3 (strongly agree). Strongly disagree and don't know were taken together as the lowest rating as it was considered that both answers indicated a low level of leadership. The questions can be seen in Table III together with the mean and standard deviation for each factor.

Internal consistency for the 33 questions identified in the factor analysis was estimated with Cronbach's alpha. The internal consistency for the subscales was well above common thresholds (Field, 2017), with the alpha ranging from 0.83 to 0.90. The measurement scales for the four different aspects of leadership were obtained by adding the responses to the relevant questions, and the range of each scale was then adjusted to run from 0 to 10 (taking into account the different number of questions behind each subscale). The overall scale for leadership was then constructed as the mean score of the different subscales (also running from 0 to 10).

		Mean	Std. Dev
	How much do you agree or disagree with the following statements?		
	The local school support services are well prepared to respond to the principal's requests for services.	1.81	0.82
Su	The municipal school support services place great emphasis on the initiative of school staff to promote schoolwork.	1.96	0.92
Setting directions	The municipality's school support services emphasize the creation of a reconstructed school culture in the municipal schools.	1.73	0.94
Setting	Educational authorities and principals are coherent in the way they enhance local school support services.	1.71	0.92
	The municipal educational authorities place great emphasis on ensuring the stability of school support services.	1.78	0.91
	The municipal education authorities encourage and support school staff to consider their own practices.	1.66	0.91
	Cronbach's alpha = 0.83	1.78	0.91
	How much or how little emphasis does the school support service place on providing school support with the following actions?		
	Organized educational meetings/professional development	1.40	0.86
le	Counselling to principals on the school ground	1.20	0.89
Developing people	Take a stand on the following statements: The school support service takes the initiative in		
opin	counselling new, inexperienced teachers	0.56	0.76
evel	counselling on action research	0.33	0.58
Q	counselling on students' welfare	1.28	0.92
	counselling on the professional development of teachers	0.91	0.88
	counselling on the professional development of principals	0.92	0.89
	Cronbach's alpha = 0.86	0.94	0.83
the	How much or little emphasis is there on the following aspects in the school policy?		
ligning tion	Relationship and continuity of preschool, elementary, and secondary schools	1.72	0.80
nd a miza	Support to parents	1.70	0.81
Refining and aligning the organization	How much or how little emphasis does the school support service place on providing school support with the following actions?		
4	Work environment counselling	0.94	0.80

Table III. An overview of questions, mean, and standard deviation of each factor

ıl		1.20	0.85
	Cronbach's alpha = 0.90	0.99	0.82
C	counselling teachers on formative assessments	0.54	0.75
C	counselling on development of a competence-based assessment	0.57	0.76
(counselling on school curriculum guide	0.78	0.89
	counselling on school evaluation and assessment	0.90	0.93
n	counselling on development projects	0.66	0.82
	ake a stand on the following statements: The school support service takes ne initiative in		
(Counselling on schools' self-assessment	0.94	0.80
(Counselling to teachers on development projects	0.92	0.83
	Counselling of teachers regarding the specific needs of pupils/children in choolwork	1.74	0.75
	General pedagogical counselling with teachers in their daily work with the upils/children	1.38	0.86
(General counselling/educational meetings for teachers	1.51	0.82
	ow much or how little emphasis does the school support service place on roviding school support with the following actions?		
	Cronbach's $alpha = 0.88$	1.08	0.86
f	field studies in the schools	0.74	0.81
C	counselling on instructional/pedagogical leadership	0.85	0.84
C	counselling on school leaders' work	1.05	0.93
C	counselling on teachers' work	1.02	0.90
C	counselling teachers on cooperation with parents	0.92	0.89
8	attending lessons	0.64	0.82
v	visiting the schools	1.23	1.00
th	ne initiative in		

Take a stand on the following statements: The school support service takes

Improving teaching and learning programs

Total

Table IV shows descriptive information on scales, means, standard deviations, number of responses (n) for each subscale, the overall leadership scale, Cronbach's alpha for each of the measurement scales, and the average mean of the factors for each category and the framework in total.

Leadership categories	Number of questions	N/n	Mean	Std. Dev.	min.	max.	Average mean	Cronbach's alpha
Setting directions	6	268/203	1.78	.65	0	3	1.78	.83
Developing people	7	268/209	0.94	.62	0	3	0.94	.86
Refining and aligning the organization	10	268/230	1.10	.61	0	2.90	1.08	.88
Improving teaching and learning programs	10	268/209	1.02	.62	0	3	.99	.90
Total of framework	33	268/203	1.20	.55	6	2.95	1.20	.89

Table IV. Descriptive statistics for accumulated values of each leadership subscale

Data Analysis

Differences in respondents' views are analysed by the three different occupation positions presented (i.e., MES-leaders, compulsory school principals, and preschool principals), population density, geographical location, school support service structural arrangements, and human resources in SSS. A one-way between-groups analysis of variance (ANOVA) was used to determine any statistically significant differences between groups on the independent variables (the threshold for statistical significance was set at α =0.05). Where the independent variables consisted of more than two groups, a post hoc test (Tukey HSD) was used to determine which groups were significantly different from one another (Field, 2017).

Findings

The findings are presented in four subsections. The first traces the characteristics of leadership practices regarding SSS in accordance with the leadership framework of Leithwood et al. (2008, 2020) and the factors selected for this study. The second follows the different views of MES-leaders, preschool principals, and compulsory school principals toward these practices. The third involves how population density, geographical location and structural arrangements of the SSS explain differences in school principals' views. The fourth determines the extent to which human

resources at the school offices explains differences in all the participants' views toward the practices.

Characteristics of educational leadership practices

The average perceived strength of leadership practices across all categories in the framework is 1.2 (see Table III) out of 3. The perceived strength of leadership is strongest for setting directions where the average score was 1.78, while it is weaker (0.94–1.08) in the other three categories.

The questions within *setting directions* all score similarly. The lowest score is regarding whether municipal educational authorities encourage and support school staff to consider their own practice (1.66), while the highest score (1.96) concerns whether they place great emphasis on the initiative of school staff to promote schoolwork.

The category of *developing people* scores on average the lowest of the categories (0.94), and the differences in scores between the statements are high (0.33–1.40). The highest score refers to the emphasis on organizing educational meetings meant for professional development (1.40). The lowest scores concern the initiative taken by the support services for counselling on action research (0.33) and new or inexperienced teachers (0.55). The services take a little more initiative, however low, in counselling on the professional development of teachers (0.91) and principals (0.92) but the initiative taken to counsel on the students' welfare scores higher (1.28).

The category of *refining and aligning the organization* scores the second lowest (1.08), with the scores ranging from 0.74 to 1.72. The highest scores regard emphasis on the relationship and continuity of preschool, elementary, and secondary schools (1.72) and on support to parents (1.70). Statements regarding the support services initiatives again score low, such as attending lessons (0.64), promoting field studies (0.74), and pedagogical leadership (0.74), but their initiative to visit schools is higher (1.23).

The scores within the category of *Improving teaching and learning programs* also show great diversity among the results (0.54–1.75). The highest scores regard the specific needs of pupils (1.74) and general counselling or educational meetings for teachers (1.51). Lower scores are given for the emphasis on counselling to teachers on schools' self-assessments (0.94) and development projects (0.92). Even lower are statements regarding the initiatives taken by the

SSS on counselling on development projects (0.66) and various student and schools' assessments (0.57 and 0.54).

Different perception of MES-leaders and preschool and compulsory school principals

A one-way ANOVA was used to test for differences in the perceived strength of leadership practices between MES-leaders, preschool principals, and compulsory school principals (see Table V).

		Setting directions ^a	Developing people ^b	Refining and aligning the organization ^b	Improving teaching and learning ^b	Total of framework ^b
MES-leaders	Mean	2.10	1.40	1.59	0.77	1.62
WIED-ICaucity	SD	0.53	0.62	0.61	0.50	0.55
Preschool	Mean	1.84	0.99	1.15	1.06	1.25
principals	SD	0.67	0.61	0.61	0.59	0.55
Compulsory school	Mean	1.54	0.67	0.83	1.46	0.96
principals	SD	0.56	0.47	0.46	0.67	0.43
Total of groups	Mean	1.78	0.94	1.10	1.02	1.20
Total of groups	SD	0.65	0.62	0.61	0.62	0.55
One-way		$F_{(2, 200)} = 10.21$	$F_{(2, 206)} = 19.16$	$F_{(2, 227)}=22.11$	$F_{(2, 227)} = 17.37$	F(2, 227)=20.86
ANOVA	Sig.	p=.00	p=.00	p=.00	p=.00	p=.00
Effect size		η²=0.16	η²=0.09	η²=0.16	η²=0.14	η²=0.16

Table V. Difference by occupation positions in perceived strength of leadership practices

^a For *setting directions* significant difference was observed between all groups except preschool principals and MES-leaders.

^b For *developing people*, *refining and aligning the organization*, *improving teaching and learning* and the framework in total, significant difference was observed between all groups.

The differences in mean scores between groups were large except for *setting directions* where it was medium. However, in all the cases, when rating leadership practices, compulsory school principals had the lowest score, MES-leaders the highest, and preschool principals in between.

Geographical location, population density, and structural arrangements of school support

services

A one-way ANOVA was conducted to test for differences in the perceptions of leadership practices, as rated by preschool and compulsory school principals as one group, by geographical

location. Table VI shows the result for regional group difference in perceived strength of leadership practices. These are the regions that previously were used to organize SSS.

		Setting directions	Developing people	Refining and aligning the organization	Improving teaching and learning	Total of framework
Capital	Mean	1.47	0.62	0.90	0.80	0.96
	SD	0.63	0.46	0.52	0.40	0.47
Capital region	Mean	1.82	0.97	1.01	1.01	1.16
without the capital	SD	0.58	0.56	0.54	0.51	0.50
Southern Peninsula	Mean	1.87	0.79	0.95	0.77	1.13
Southern Peninsula	SD	0.61	0.50	0.46	0.46	0.41
Western Region	Mean	1.34	0.79	1.07	0.81	1.10
Western Region	SD	0.94	0.88	0.81	0.91	0.86
Westfjords	Mean	1.80	0.83	1.18	1.25	1.30
westijorus	SD	0.62	0.57	0.67	0.82	0.59
Northwestern Region	Mean	2.00	1.04	1.14	1.14	1.33
Northwestern Region	SD	0.62	0.54	0.48	0.56	0.46
Northeastern Region	Mean	1.66	0.79	1.03	0.94	1.10
Northeastern Region	SD	0.46	0.51	0.59	0.56	0.46
Eastern Region	Mean	1.44	0.63	0.76	0.68	0.88
Lustern Region	SD	0.59	0.43	0.53	0.44	0.37
Southern Region	Mean	1.95	1.13	1.26	1.14	1.37
Southern Region	SD	0.67	0.62	0.61	0.61	0.50
Total of groups	Mean	1.71	0.86	1.02	0.94	1.13
Total of groups	SD	0.65	0.58	0.58	0.57	0.52
One-way ANOVA		$F_{(8, 162)}=2.39$	F(8, 167)=2.07	F(8, 187)=1.27	F _(8, 167) =1.73	F(8, 187)=1.90
	Sig.	p=.02	p=.04	p=.26	p=.10	p=.06
Effect size		η²=0.11	η²=0.09	η²=0.05	η²=0.08	η²=0.08

Table VI. Difference by region in perceived strength of leadership practices

For the framework in total, the differences by region were not statistically significant, while there was a difference by region in the category of *setting directions* and *developing people*. However, a post-hoc comparison did not confirm between which groups this difference was. The actual difference in mean scores between groups was moderate. This indicates that strong relations do not exist between the principals' experience of the practices and the regions and that it is difficult to determine between what regions the difference is.

A one-way ANOVA was used to test for differences by population density (using the concept of functional urban areas, FUA). This included comparison between three types of areas: (a) the Capital and municipalities within 50–70 km drive from its centre; (b) A core in the Northeast region including municipalities within 50–70 km e; and c) other areas (Table VII). No differences were found.

A one-way ANOVA was used to test for differences between the Capital, municipalities with towns of more than 10,000 inhabitants and municipalities with towns of less than 10,000 inhabitants (Table VII).

Table VII.Difference bymunicipal town-sizein perceived strengthof leadershippractices		Setting directions ^a	Developing people ^b	Refining and aligning the organization	Improving teaching and learning	Total of framework
The Capital	Mean	1.45	0.58	0.88	0.78	0.94
	SD	0.63	0.42	0.53	0.37	0.46
Municipalities with towns above 10.000	Mean	1.83	0.92	1.02	0.96	1.15
inhabitants	SD	0.55	0.55	0.54	0.49	0.47
Municipalities with towns of less than 10.000	Mean	1.73	0.90	1.07	0.97	1.18
inhabitants	SD	0.69	0.62	0.61	0.65	0.56
Total of groups	Mean	1.71	0.86	1.02	0.94	1.13
	SD	0.65	0.58	0.58	0.57	0.52
One-way ANOVA		F _(2, 168) =3.04	F _(2, 173) =4.03	F _(2, 193) =1.45	F _(2, 173) =1.39	F(2, 193)=3.01
-	Sig.	p=.05	p=.02	p=.24	p=.25]	p=.05
Effect size	· · · · ·	η²=0.03	η²=0.04	η²=0.01	η²=0.02	η²=0.03

^a For *setting directions* significant difference was observed between the Capital and municipalities with towns above 10,000 inhabitants.

^b For *developing people* significant difference was observed between the Capital and both municipalities with towns above 10,000 inhabitants and towns of less than 10,000 inhabitants.

This gave a difference for the framework in total and in *setting directions* and *developing people* but not in the other two categories. The difference in mean scores for the framework, *setting directions* and *developing people* was low. Where a difference was found it indicated less

satisfaction with the leadership practices in the Capital than in the other groups. However, this difference seems not to have much effect on the leadership practices.

A one-way ANOVA was conducted to explore if structural arrangements of SSS could explain differences in leadership practices. The answers were grouped according to whether principals worked in municipalities with its own school office run by a superintendent, or a school office run in cooperation with other municipalities, such as regional councils, where the superintendent is not necessarily situated in the same municipality as the principal. No difference was found.

Human resources at school support services

A one-way ANOVA was conducted to explore the impact of the human resources available to SSS on the levels of leadership. For this analysis, answers from both MES-leaders and principals were used. The answers were divided into two groups according to whether they agreed or disagreed with the statement that *difficulties in staffing school support services had a negative impact on its activities* (Table VIII).

Table VIII. Difference by difficulties in staffing SSS in perceived strength of leadership

practices

		Setting directions	Developing people	Refining and aligning the organization	Improving teaching and learning	Total of framework
	Mean	1.58	0.79	0.92	0.87	1.04
Agree	SD	0.65	0.59	0.61	0.60	0.53
	Mean	2.01	1.17	1.31	1.22	1.43
Disagree	SD	0.57	0.56	0.55	0.59	0.48
	Mean	1.77	0.96	1.10	1.03	1.22
Total of groups	SD	0.65	0.61	0.61	0.62	0.54
		F(1, 190)=23.20	F(1, 190)=20.21	F(1, 190)=20.79	$F_{(1, 190)}=16.44$	F(1, 190)=27.42
One-way ANOVA	Sig.	p=.00	p=.00	p=.00	p=.00	p=.00
Effect size		η²=0.11	η²=0.10	η²=0.10	η²=0.08	η²=0.13

Statistical difference of each category and the framework in total were found. The actual difference in mean scores between the two groups for the whole framework was medium. Similarly, an analysis was conducted according to whether they agreed or disagreed with the

statement that *professional expertise of employees largely determined the focus of the school support services* (Table IX).

		Setting directions	Developing people	Refining and aligning the organization	Improving teaching and learning	Total of framework
Agree	Mean	1.68	0.87	1.00	0.93	1.12
Agree	SD	0.63	0.59	0.59	0.58	0.52
Disagree	Mean	2.07	1.30	1.46	1.34	1.54
Disagree	SD	0.64	0.60	0.58	0.64	0.51
Total of groups	Mean	1.77	0.96	1.09	1.02	1.21
Total of groups	SD	0.65	0.61	0.61	0.62	0.54
One-way ANOVA		F _(1, 193) =12.09	F _(1, 193) =17.95	F _(1, 193) =20.69	F _(1, 193) =15.59	F (1, 193)=22.23
-	Sig.	p=.00	p=.00	p=.00	p=.00	p=.00
Effect size		η²=0.06	η²=0.09	η²=0.10	η²=0.08	η²=0.10

Table IX. Difference by assessment of professional expertise of employees of the SSS in perceived strength of leadership practices

This again gave a statistical difference of each category and the framework in total. The actual difference in mean scores between the two groups for the whole framework and all categories except *setting directions* was medium. This means that difficulties in staffing SSS have a negative effect on how respondents rated school support service leadership. Similarly, respondents who agreed with the opinion that professional expertise largely determined the focus of SSS, rated municipal educational leadership much lower than those who did not. Only considering school principals answers to those two questions gave similar results.

Discussion

The following section considers the extent to which leadership based on Leithwood et al.'s (2008, 2020) framework is reflected in practices regarding SSS in Iceland. It discusses the extent to which the views of MES-leaders, preschool principals, and compulsory school principals about these practices differ. Furthermore, it discusses to what extent the leadership practices differ based on population density, geographical location, structural arrangements, and human resources. The discussion is organized in four subsections corresponding to the Findings section.

Loopholes in characteristics of leadership practices

Scores for all the categories of Leithwood et al.'s (2008, 2020) framework of leadership were low, indicating room for progress in leadership practices in the SSS in Iceland. All participants rated practices within the category of *setting directions* higher than the other three categories. The category of *developing people* got the lowest score. This suggests little leadership emphasis given to strengthening novice teachers and to provide for professional development of teachers and school leaders. The same conclusion can be made regarding support for pedagogy, curriculum, assessment, and research-based work. On the other hand, issues concerning children and parents got the highest scores. This is in accordance with the findings of Sigbórsson (2013) and Svanbjörnsdóttir et al. (2021) that the main emphasis of the support services was on providing support for pupils and their parents rather than for schools' professional activities (see Reglugerð nr. 444/2019) or for leadership practices. Looking across the categories, it is interesting that scores for statements concerning initiatives on behalf of the support services are especially low. This indicates that the municipal authorities and other MES-leaders do not have a clear vision of their role as educational leaders responsible for providing leadership that gives direction and shapes the actions of the SSS, or what Hargreaves and Shirley (2020) refer to as proactive leadership. Rather, their leadership is reactive, and they seem to see themselves as managers of education and senior managers of the principals, with responsibility for the division of educational funding within their municipalities. This might imply that more weight is placed on the political than the professional educational aspect of leadership.

Accordingly, it seems unlikely that existing leadership practices enhance the official imperative of "strengthening schools as professional institutions that can solve most of the issues that arise in schoolwork and provide school staff with guidance and assistance in their work, as appropriate" (Reglugerð nr. 444/2019, article 2). Given the legislative role of that municipalities in education requires leadership that falls within the framework of Leithwood et al. (2008) (Sigurðardóttir et al. 2018), there is a gap between the legislation and the actual leadership practices regarding SSS. This indicates an opportunity for MES-leaders and municipal authorities to work on improving their leadership practices for the benefit of the schools.

Different perceptions of MES-leaders and preschool and compulsory school principals

It was expected that MES-leaders and principals would express somewhat differing views on educational leadership practices. However, the actual scope of the difference is of concern. Generally, when rating educational leadership practices, the MES-leaders (most of them superintendents) gave the highest rating, compulsory school principals gave the lowest and preschool principals were somewhere in the middle. This points to a lack of coherence (Fullan and Quinn, 2016) between school levels and school offices. Furthermore, it indicates a lack of mutual understanding and proximity between the various professionals at municipal and school level, as well as a possible lack of trust. As Paulsen et al. (2016) and Forfang (2020) point out, a part of the leadership role of MES leaders is focusing on building close and positive relationships with principals and other professionals. Therefore, such an effort should be enhanced. The focus must be on shared understanding of the drive and the nature of SSS, as well as of collaborative, trustworthy, and purposeful leadership practices. Due to their responsibility, MES-leaders whether they are superintendents or municipal managers need to be a driving force in this process (Hargreaves and Shirley, 2020; Leithwood, 2008, 2020; Paulsen et al., 2016).

The data in this study do not provide explanations for the differences in the views of principals in preschools and those in compulsory schools on the leadership practices regarding SSS. Further investigation based on qualitative data might shed a light on reasons behind these differences.

Contextual municipal differences explain little of the strength of leadership practices

The findings indicate that principals' perception of the leadership practices regarding SSS is only vaguely related to geographical location, population density and structural arrangements. No differences were found between the FUA's or whether principals work in municipalities with its own school office run by a superintendent, or a school office run in cooperation with other municipalities. There were, however, some differences found between the regions, according to whether principals belonged to the Capital city (Reykjavík) or other municipalities, favouring the latter. This means that there is more variance between how principals experience the leadership practices regarding the SSS within Reykjavík, than between principals in Reykjavík and those in the other municipalities. In Reykjavík SSS are partly provided at different centres throughout the city. Thus, it indicates that leadership practices within those services are much dissimilar. As noted by Landy (2013) and Nutter (2021) structural hindrances increase as districts grow bigger

with more schools. This has negative effect on their capacity to influence principals and schools' environment in a positive way. This might explain those differences in leadership practices between Reykjavík and other municipalities. Other explanations could be different expectations between principals in the Reykjavík and other municipalities. In the more rural municipalities, principals tend not to expect much municipal support and are content with goodwill, moderate funding, and even a great extent of autonomy regarding school support (Sigurðardóttir, 2018).

However, these findings contradict somewhat assumptions and earlier arguments claiming that the larger municipalities in Iceland, and especially Reykjavík, are more likely to provide necessary SSS as they have more adequate infrastructure in place (Hansen and Jóhannsson, 2010; Sigþórsson, 2013). It is necessary to look further into the leadership practices at the SSS in Reykjavík for deeper understanding of the reason for their SSS disadvantages compared to other municipalities.

Simultaneously, more data is needed from the smallest municipalities, where the principals might not be in connection with a school office. It is important to reach out to this group of principals and municipal managers for a more holistic understanding of the services in such conditions.

How human resources matter for leadership practices

The findings underline the significance of human resources at the middle level, as found in various other studies (Bantwini and Moorosi, 2018; Duke, 2010; Hargreaves and Shirley, 2020; Honig, 2012; Leithwood et al., 2019; Moorosi and Bantwini, 2016). They strongly indicate that human resources at the SSS shape their leadership practices much more than their geographical location, their structural arrangements, or their population density. Available professional expertise and difficulties in staffing the services seem to determine the focus of school support services to a large degree. There is a risk that the practices of SSS are more influenced by the availability of skilled staff than by legislation or policies. These findings support earlier concerns that the municipalities have uneven access to competent staff for SSS (Hansen and Jóhannsson, 2010). They underline the importance of developing professional capacity at this middle level, as pointed out by Honig (2012). In addition, the findings give a clear message to both municipal and state authorities that they should take steps to increase this professional capacity. Given the role of superintendents as professional agents and leaders at the municipal level as demonstrated in other Nordic countries (Paulsen et al., 2016; Moos, Johansson et al., 2016) it seems that MES-

leaders need to step up in their leadership roles and acquire support by their municipal authorities to do so. Finally, these findings support Leithwood et al.'s (2019) argument that too much emphasis tends to be put on the size and population of the districts and municipalities instead of looking at factors that they can better control, such as their own leadership practices and the development of their own professional SSS staff.

Conclusion

The results from this study indicate space for considerable improvement of the various leadership practices regarding SSS at the municipal level in Iceland. Municipalities in general have not managed to fulfil their leadership roles in accordance with legislation, especially from the principals' point of view. Both political (municipal managers) and professional (superintendents) actors, seem to act as responders to the schools' requirements than being proactive and providing desirable leadership. In particular, they provide limited support and leadership regarding the professional development of teachers and principals and support for new teachers. Nor do they sufficiently support the schools in refining and aligning their pedagogical and assessment work. Geographical location, population density, and the structural arrangements of SSS do not seem to make much difference in leadership practices at SSS at the municipal level. On the other hand, available human resources do. However, these findings indicate that within bigger municipalities (Reykjavík in this case), there are structural hindrances above that of the smaller municipalities that might work against their advantages of having better access to competent staff.

We suggest that municipal authorities should purposefully work towards improvement in their leadership practices to better support their schools. They should engage more in the development of professional capacity within the SSS. This entails looking into how they attract appropriate professionals and support their professional capacity development within the SSS. For this initiative to work, given the municipal differences, the state must cooperate in finding appropriate solutions, especially in the more rural areas.

The gap in views between MES-leaders and principals indicate a different understanding of what the leadership of the SSS should consist of, suggesting a lack of dialogue and mutual trust. We suggest a stronger focus on creating a shared understanding and proximity between the municipal and school levels regarding the development of leadership in this domain.

The findings provide little information on the leadership practices in municipalities with fewer than 1,000 inhabitants. Limited participation in the study in these municipalities could indicate a lack of leadership. We recommend collecting qualitative data to deepen the understanding of leadership practices in these areas.

The findings provide a valuable contribution to the limited knowledge of leadership practices regarding SSS in Iceland. They add to the body of knowledge about educational leadership at the middle level of educational systems. As a nationwide quantitative study, the findings portray an oversight that is seldom gained in the more traditional qualitative studies of leadership at the municipal level.

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