

This is the pre-peer reviewed version of the following article: Actual and ideal roles of school staff to support students with special needs: current needs and strategies for improvement, which has been published in final form at <https://doi.org/10.1111/1467-9604.12313>. This article may be used for non-commercial purposes in accordance with Wiley Terms and Conditions for Use of Self-Archived Versions.

Title: Actual and ideal roles of school staff to support students with special needs: Current needs and strategies for improvement

Abstract

To optimise school-based service delivery for students with disabilities, it is important to understand roles and needs of school staff. This study aimed to clarify ideal and actual roles of school staff (teachers, special educators, administrators) working with students with special needs, and to identify potential strategies to support actual roles. Ninety-five school personnel (64% teachers) from 3 different elementary schools and school boards in Quebec completed a 14-question survey. Open-ended responses were coded and analysed thematically. Common actual roles included task adaptation, offering individualized support, being available, and teamwork. Respondents felt roles could improve through in-context professional support, continuing education, teamwork opportunities extending to partnerships with families, and access to resources. Clarifying roles and expectations within a tiered-model to best support students also emerged, emphasizing the importance of sharing responsibilities across all service providers. Findings can guide implementation strategies and processes for providing effective services, enabling inclusion for students.

Key words: disability, inclusive practices, elementary

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In most industrialized countries, school organization policies favour inclusion of children with special educational need (SEN) in mainstream education (MELS, 2007). To illustrate, over 60% of students with disabilities are included in regular classes in North America (Gaudreau et al., 2008; Snyder et al., 2019). Yet despite this positive progress, many students with disabilities do not experience academic success. For example, in the United States, 69% of students with learning disabilities do not complete one or more courses in high school compared to 47% of their peers with no disabilities (Cortiella & Horowitz, 2014). School inclusion stipulates that regular classroom should be prioritized as the main setting in which education takes place for students with SEN (Ryndak et al., 2000). To foster successful inclusion, collaborative approaches, educational strategies and support measures are suggested to facilitate students' in-class participation and optimise their learning environment (Deloitte, 2010). However, teachers and non-teaching professionals report they are not well-trained, have insufficient resources (e.g. time, material) and access to specialized services to fulfil their roles in supporting students with SEN (Kalubi, 2015; Kohen et al., 2010; Timmons & Wagner, 2008). Lack of teachers' support results in reduced graduation rate and decreased overall health status among students (Kalubi, 2015; Nochajski & Schweitzer, 2014) and increased level of stress among parents, teachers and school staff (Winzer & Mazurek, 2011).

Service delivery models

Several service delivery models have been developed and implemented in education settings to promote capacity building of educators and school staff so they can best service students with SEN. Tiered approaches, for example the Response-to-Intervention (RTI) Model,

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where high quality evidence-based school-wide instruction, graduated supports and capacity-building approaches (achieved through collaboration among professionals and knowledge exchange) are used, might be best to support teachers (e.g., knowledge-base, skills, classroom management), foster students' school success (e.g. attention, classroom behaviour, academic achievements), prevent the onset of difficulties/facilitate early detection and optimise delivery of specialized services (Anaby et al., 2019). Partnering for Change (P4C) is another example of a tiered model inspired by RTI. Embedded in collaboration, coaching, and competency development delivered in the real context, it appeared to promote school success and provision of services (Missiuna et al., 2012).

There is little detailed information however on the implementation processes of a tiered approach and how teachers and support staff roles change as a result of such models. First steps in organizational changes include carrying out a comprehensive needs assessment to obtain a clear understanding of the current and desired situation (Camden et al., 2009) from the perspective of all stakeholders involved (Lanzotti, 1991). Since stakeholders' perceptions tend to relate either to individual or organizational aspects, an eco-systemic approach (Bronfenbrenner, 1979) could help categorize the focus of future actions to improve support services. Examining actual and ideal roles is important as it can tease out the specific gaps and needs of all parties which can in turn, be addressed through focused intervention strategies at the individual (micro) and organizational (macro) levels, with the purpose of optimizing school staff roles in the context of tiered models of service.

Project context and Purpose

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The policies on organization of services in Canada and other parts in North America generally focus on early intervention and individualized evaluation of the needs of the students. Thus, educators working with the students must adopt approaches which best support the increasingly diverse needs among student experiencing learning difficulties or impairments. Our team, the Group for Optimizing Leadership in Delivering Services (GOLDS) is conducting a multi-phase project to explore these implementation processes and the roles of stakeholders within educational milieus in order to optimise service delivery for students with SEN. Our overarching objective is to develop, implement and evaluate an intervention to optimise stakeholders' roles within a tiered inclusive educational model to favor the school success among children with SEN.

This study, phase 1 of the GOLDS project, aims to determine the actual and ideal roles of educational stakeholders involved in the implementation of tiered model in Quebec and to understand factors influencing both the implementation process and the ideal roles from the perspective of school-based service providers. The main objective of this phase 1 descriptive study is to: (1) explore the *actual* and *ideal* roles of school staff (teachers, non-teaching professionals, administrators) working with students with special needs integrated in mainstream elementary schools; and (2) identify the perceived opportunities and threats influencing the realization of these roles as well as areas requiring improvement.

Methods

A cross-sectional survey study was employed. Primary schools were included given the current emphasis of early intervention practices. Participants were recruited from three different public elementary schools from 3 different school boards. Following a provincial education reform in

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1998, school boards were restructured to represent linguistic communities in lieu of representing religious communities. Two of the participating public schools were francophone, situated in a metropolitan city and overseen by the city's second and third largest school boards (overseeing 75 and 41, respectively). The third school was an anglophone school situated in a rural city and affiliated with a smaller school board which oversees 20 schools in the area. All schools integrated students with SEN in their mainstream classrooms. All school staff were eligible to participate, including classroom and specialist teachers (e.g. physical education, music), administrators (e.g. school principals, vice-principals), non-teaching professionals (e.g. psychologist) and support staff (e.g. teaching assistant, librarian, caretaker). The research team met with the school principals of every school to explain the project. Then, researchers presented the study at a school meeting in each of the three schools. Online versions and paper copies of the survey were available in French or English and most participants completed the online survey during the school meetings on their laptops. Hard copies were made available for those who could not complete it online. Following this meeting, an email invitation was sent to all school personnel by the school principal. This email included a link to the survey and an attachment for those wishing to complete a paper version.

Assessment

To capture actual and ideal roles of school staff when working with students with SEN a survey guided by the SWOT Analysis (Strengths, Weaknesses, Opportunities, and Threats) was developed. It allowed respondents to expand on aspects of their roles which are effective as well as areas that require improvement (Camden et al., 2009). Respondents identified opportunities to enhance their roles as well as factors that could possibly impede the implementation of their

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ideal roles. The survey consisted of 14 questions, four formatted as multiple choice to document sociodemographic information, three 7-point Likert scale questions and seven open-ended questions. The Likert-scale included questions about the extent to which respondents were satisfied with their current roles, their roles could be improved and to what extent they felt students' needs were being met (in relation to their roles). Likert scale ranged from 1 ('Not at all'); 4 ('Somewhat'), to 7 ('To a very great extent'). Using open-ended questions, respondents were asked to describe their current roles and responsibilities as well as to elaborate how these roles and responsibilities would idealistically look like. Participants were asked to suggest strategies for supporting/facilitating the implementation of ideal roles and to propose areas for improvement. Table 5 specifies all survey questions (see supplementary material).

Data Analysis

Likert type questions were numerically analysed using descriptive statistics (range, mean, median, interquartile range [IQR]) within and across schools. Content analysis was used to analyse the open-ended responses using inductive methods as concepts were derived from the data through this process (Elo & Kyngäs, 2008). Two reviewers independently coded each segment of participants' responses and, through consultation with the principal investigator, combined codes to generate a preliminary list of themes. All codes and themes were then reviewed by a second team member. Any disagreements were discussed until consensus was reached and the final themes were then discussed with the principal investigator. Drawing on the science of organizational behaviour of individual and group processes (Barling et al., 2008), themes describing the actual and ideal roles as well as suggestions for improvement were organized based on 'macro' level principles, pertaining to aspects at the school-level or system-

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level (e.g. school board or governmental level) and on ‘micro’ level principles, relating to factors at the personal or individual level. Finally, frequencies were calculated to represent the number of times a particular theme was identified by participants across the survey, in percentages.

Results

Sample characteristics

The three schools varied in size, language of instruction and location/district. All schools followed an inclusive RTI learning approach (for a duration of 1 to 3 years) and none had special education classes. Table 1 highlights the characteristics of each school and the corresponding personnel. Participants generally reported they were ‘somewhat’ satisfied with their roles, with an average of 4.64/7 based on the Likert question (median=5, IQR 4-5) and 56% rated this question as ‘more than somewhat to greater extent’. Sixty-six percent indicated their roles can be improved ‘more than somewhat to a great extent’ (mean of 5.23/7, median=5, IQR 4 -6). Responders (40%) felt students’ needs were only ‘somewhat’ being met (mean of 4.05/7, median=4, IQR 3-5) and 30% reported needs were ‘not at all to less than somewhat’ being met.

[Insert Table 1 here.]

Themes

Themes were created based on reoccurring ideas or topics which transcended across the research questions, regardless of the question category (e.g. SWOT categories). For example, the theme ‘task adaptation’ was repeated across survey questions pertaining to actual and ideal roles, and also identified as an area for improvement. Most frequently reported themes and their operational definitions are listed in Table 2, organized by micro and macro levels.

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[Insert Table 2 here.]

Actual roles and positive aspects of current roles

Six common themes emerged from the data representing actual roles. Four were at the micro level and included ‘task adaptation,’ ‘offer individualized support,’ ‘being available’ to students, and ‘providing them with direct support.’ The remaining two themes were at the macro school-levels, including ‘teamwork’ and ‘family-school collaboration.’

As shown in Figure 1, three aspects of the actual roles, i.e., offering individual support, team-working and collaborating with families, were perceived as helpful. Two additional attributes of roles that were perceived as worthwhile, yet not frequently reported as actual roles, were creating a connection with students and implementing strategies to manage behavioural issues.

[Insert Figure 1 here.]

As shown in Table 3, the most common theme describing actual roles was task adaptation, which included, for example, modifying the lesson or in-class assignment, reducing the workload, or providing accommodations such as more time to complete the work. Although task adaptation was reoccurring and most common micro-level theme across all schools (26%), it was less frequently reported as a positive aspect to their current roles. Offering individualized support was another common micro-level theme describing current roles of service providers (24%) and was reported at times as a positive aspect of their role (14%) across all schools. This involved providing support both academically and personally, as well as ensuring that the student

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receives individualized attention to his/her education plan. Participants reported that working individually with the students is effective with academic tasks like reading and writing. This individualized support, as illustrated by a grade 1 teacher, also entails ‘making the necessary resources available to respond to the students’ needs.’

Within the macro-level themes, teamwork was a frequently mentioned with respect to actual roles (24%). It was also regarded as the most commonly reported positive aspect of their role across the schools (20%). This involves working collaboratively in teams with other educators (e.g. resource teachers, special education technicians), professionals (e.g. psychologist, psycho-educator), and/or parents through consultation and exchange of information. Closely related the theme of teamwork was the idea of family-school collaboration (19%). This role encompassed informing, sharing the education plan/objectives, or communicating the behaviour plan with the parents or family. The regular contact between the home and school was described as a positive and important strategy across the schools, at a frequency of 14%. Participants appreciated this collaborative synergy between colleagues, professionals and parents and highly regarded this as a contribution to student progress and to creating bonds with students. These positive interactions align with the micro-level theme of ‘creating a connection’, which emerged as a positive and beneficial aspect of their role in 15% of the themes identified. This involved ‘having good chemistry with the students’ or establishing mutual respect with the students as a strategy to help with management of behaviours. Finally, the positive attribute of ‘being available to students’, which was identified as an actual role (23%), involved offering time to the student, both for psychosocial or academic support. To illustrate, a grade 3 classroom teacher

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stated her duty of engaging students in learning tasks involves ensuring they feel accepted and confident despite their difficulties.

[Insert Table 3 here.]

Unique findings per school

Some unique aspects of current roles were observed in specific schools. This included working in small groups, creating a positive climate and using adaptation strategies to manage behavioural problems. Specifically, working in smaller groups or sub-groups was a distinct element that was positively perceived in only one of the three schools (38%). This involved helping student structure their tasks, allow them more time to work on classwork and work out problems, and facilitate their understanding of concepts taught in class. Another unique and useful component of current roles involved creating a positive climate for learning within the classroom. Thereby students can feel safe or comfortable in their environment by respecting, for instance, their own rhythm. Establishing this kind of atmosphere was reported to facilitate the implementation of learning or behavioural strategies to optimise success. For example, a grade 3 teacher jointly created a reward system with a student to establish goals together.

Using behavioural adaptive strategies to deal with problematic behaviours was another theme perceived as a positive aspect of their actual roles (16% frequency rate) across the three schools. While it was not frequently identified as an actual role overall, in one school, approximately half of the reported themes (52%) described the use of such strategies as part of actual roles. Examples include the implementation of behaviour charts, sticker systems, a 'safe haven' (e.g. a quiet space where students can go to reflect) or the use of rewards. Similarly, the

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same school did identify with the strategy of ‘giving a break’ (33%) (e.g. leave the classroom and calm down) and providing feedback to students with behavioural difficulties. This involved constructively discussing the situation with the student, offering choices, and ending a conversation on a positive note.

Ideal roles and suggested areas for improvement

The seven most common themes describing ideal roles, emerged from the data and presented in Table 4, included three at the micro level: ‘creating a positive climate,’ ‘offering individual support,’ and ‘assuming roles and responsibilities.’ The remaining 4 themes were at the macro-level; two of which were related to the school’s processes such as teamwork and availability of professional services whereas the other two themes were system-level ideas and involved, in an ideal situation, ‘additional staff’ and a higher teacher-student ‘ratio.’ The latter two themes in combination with the ‘request for professional services,’ as shown in figure 2 (all at the macro-level), were also reported as areas requiring improvement. Additional areas for improvement that can support ideal roles included ‘opportunities for continued education’ and ‘release time.’

[Insert Table 4 and Figure 2 here.]

The theme ‘request for professional services’ was identified as the most common ideal element across schools (21%), as well as a significant area of improvement (24%). Within this macro system-level theme, teachers expressed the need for more support provided by specialists such as psychologists, speech therapists, occupational therapists or special educators.

Participants often commented on the long wait-times and lack of follow-up from a specialist as a barrier to implementing their ideal roles. Teachers not only identified lack of accessibility and

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infrequent availability of professional services, but also remarked on how delays in accessing health services promptly were significant barriers to supporting students with SEN. They further commented about the quality of professional services by having assistance at a ‘deeper level,’ where there is more intensive involvement of the professional who is working with the student. One teacher stated the responsibilities should be shared between the teacher and the specialist in order to adequately support the students with SEN.

The request for professional support, often linked with the need for additional staff, was also identified as a macro external system-level factor. Having additional staff, either professionals or support staff, was considered to be integral to their ideal roles as well as an area of improvement. Increased staff combined with decreased ratio of students to teachers, were indicated as means to optimise roles. Teachers and staff believed that by having more staff (e.g. aids, special education technicians, or professionals) to work with these students in need, they would be able to spend more individualized time to support them and “better intervene on an individual basis” (pre-school teacher).

Having access to continuing education or professional development programs was considered as one of the main opportunities to optimise their roles, in over one-fifth of the comments (22%). Teachers reported they require more training or education (throughout university or post-graduate level) in order to have more knowledge on how to work with this population, as highlighted by a classroom aid working with students with physical impairments: ‘[...] I didn't have all the courses in special education, sometimes I don't know how to react [...].’ Participants commented on needing to be better informed and empowered as they don't

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often feel competent to intervene and thus require knowledge about the reason behind students' behaviours, as one support staff mentioned: 'We need someone to teach us.'

The need for learning 'hands-on,' practical guidance and modelling in the classroom was made clear and repeated throughout the responses. Ecological interventions, in-context support, advice, team-teaching and workshops conducted in the classroom, in lieu of professional pull-out services where students are removed from the class, were explicitly stated to support the teachers' skillsets and management of students with special needs. For example, one participant explicitly stated: 'It would be interesting if [professionals] could provide services within the classroom so that they can work alongside with [teachers].' The notion of sharing responsibilities and the theme of teamwork was repeated in the participants' description of their ideal roles. Teamwork was identified as an already existing strength, but also repeatedly indicated as an element that can enhance their roles.

The idea of having release time was stated in order to have these collaborative experiences and meaningful multidisciplinary discussions with professionals and other school team members. To optimise support, more time for prolonged and formal conversations across all parties is needed. Indeed, additional release time was frequently mentioned as an area of improvement (15%) and a factor that can support their ideal roles (14%). Having more time was reported to permit exchanges with colleagues or specialists, but also needed to prepare their materials and spend more direct time with the students.

Another aspect that was frequently reported as an ideal role (14%) involved creating a positive climate within the learning environment, particularly in relation to managing problematic behaviours. Several participants referred their own well-being while teaching in

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positive environments where it is a ‘pleasure to teach and that the students have the pleasure of learning,’ as stated by a music teacher.

Obstacles and threats to ideal roles

Participants commented on potential barriers to achieving their ideal roles. Macro system-level themes of ‘additional staff,’ ‘ratio’ and the need for ‘release time’ were recurrent. Participants remarked on the ‘procedures and teaching tasks’ as an emerging barrier. These were reported to be time-consuming and a factor that could impede their ideal roles and, thus, should be reduced. Examples include tasks that are not related to teaching such as managing budgets, school trips or purchase orders. Furthermore, several ‘administrative constraints’ were reported to take up time and energy, such as filling in forms, completing individualized education goals and plans, and waiting for evaluations to be completed by professionals. A grade 4/5 teacher commented that this energy may be of better use in helping students.

Budgetary constraints or lack of ‘financial support’ was stated in 15% of the responses and as an external system-level factor that could impede or threaten the implementation of their ideal roles, such that financial support is necessary to hire additional staff and purchase materials.

Unique findings per school

According to the survey responses, one school presented a distinct ideal profile. This particular school identified ‘creating a positive climate’ as a primary theme when describing their ideal roles. This school’s participants often referred to the theme of assuming their role,

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alluding to the ideal of taking on duties and responsibilities solely associated with their roles (e.g. ‘to focus on teaching without interruptions’). Furthermore, the participants from this school often associated the theme of improving their ‘role’ with the theme of ‘use of behavioural adaptive strategies.’ Acquiring knowledge about learning or behavioural strategies to optimise their roles, through discussions with in-school professionals or through professional development courses, were deemed as important factors in helping students with emotional or academic difficulties.

Another school’s participants elaborated on the administrative procedures, in which the theme of ‘codes and procedures’ emerged. Participants commented on the need for consistent procedures in managing students with special needs by ‘having a protocol that is very clear and doesn’t change’ and ensuring that all individuals implicated with such students are aware of any support plans put in place.’ One participant stated having these procedures in place would help with defining their roles by knowing ‘what are the things we can or cannot do.’ Several comments were made about procedures being revised so students with special needs are prioritized and have well-organized access to the services they need to function in school.

Discussion

This present study explored teachers’ and school personnel’s self-perceived roles with working with children with SEN in inclusive environments. In describing their actual roles, the participants in this study emphasized on their micro-level attributes when working with students with SEN, such as having the skills and knowledge to adapt or modify tasks, offering individualized support both academically and emotionally, and implementing behavioural strategies to manage problematic or difficult behaviours. Individualized micro level factors, such

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as having knowledge and completing training to support inclusion, coincide with previous research (Fuchs, 2010).

The participants were often satisfied with their actual roles, despite their reported needs for improvement, as they reported positively on aspects of their roles related to behavioural support or creating relationships with the students. The positive aspects of their actual roles were also indicated as participants' ideal roles, such as 'creating a positive climate,' 'teamwork' and 'offering individualized support.' In order to further improve these roles, school personnel emphasized on the need of macro-level factors (i.e. school- or system-level factors) such as 'continuing education,' 'additional staff,' more 'release time,' 'request for professional services,' a decreased 'ratio' of staff to students in the classroom, and 'financial support.' While these needs relate with previous research (Avramidis & Kalyva, 2007; Chiner & Cardona, 2013), the participants generally expressed an increased availability of these macro resources would thus enhance their roles at the micro level.

While the abovementioned needs of school staff identified in this study are well known (e.g. lack of time, knowledge, resources), some unique perspectives emerged with a special focus on school processes including strategies for collaboration. The request for professional services, for instance, was not limited to the frequency or duration of services, but also to the quality of the involvement and sharing of responsibilities among the professionals working in schools. Such findings raise the need to redefine roles by establishing clear processes, as suggested by our participants. Collaboration and sharing of responsibilities have been described as efficient elements of service delivery models (Anaby et al., 2019). A redefinition of roles, with clear role expectations of *all* staff members, can elicit changes or the diversification of service delivery to

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ensure students with SEN receive tailored interventions across tiers, whether they are direct (i.e. provided one-to-one with the student) or indirect (i.e. via consultation or collaboration with implicated individuals). Moreover, few comments alluded to team-teaching or co-teaching as possible methods to improve their roles in an ideal world. In such a model, a teacher and co-teacher (or special educator or professional) can address the specific learning needs of students with SEN and, simultaneously, the program competencies of the other students in the class (Friend et al., 2010). Such models can provide teachers with a structure to work collaboratively.

Unique to this study, participants suggested roles can be improved by having in-class support and feedback offered by specialists present in the classroom, where actual learning occurs. This type of support can be construed as a mentoring model or coaching model, which have shown promise in improving teachers' skills, practices, self-efficacy and attitudes in supporting children with special needs (Hui et al., 2016). These principles in supporting staff members in terms of mentoring, coaching, consultation and training has been made evident in the literature (Anaby et al., 2019).

Support offered 'in context' is also one of the main components of the Partnering for Change (P4C) Model effectively used in Ontario, Canada. This multi-tiered model was founded on the principles of collaboration, coaching, and competency development delivered in the real context (Missiuna et al., 2012). The P4C model, based on similar principles of the RTI Model, promotes school success, prevents behavioural problems, and optimises the delivery of specialized services. Although there are variations, the general consultation-driven tiered model of RTI includes a school-wide instruction, collaboration and screening to prevent challenges and monitor progress (Batsche et al., 2005). The tiered approach encourages teachers to consult with

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professionals to problem solve, identify problems early on, and try strategies in the classroom. In the event that a student does not respond to the classroom-wide interventions, more resource-intensive and individualized services can then be implemented (e.g. referral to professional services, additional support in the classroom).

Tiered service delivery necessitates capacity and skill-building of all school staff members involved, which was another common theme identified by the participants. Continuing education was often repeated as an area for improvement of their actual roles. Research shows that when the quality of teacher training is low, teachers may experience challenges in including children with disabilities in the classroom (Batsiou et al., 2008; Carew et al., 2019; Lifshitz et al., 2004). In our study, continuing education was expressed by all staff members, not just teachers. Participants indicated a need to learn more about various disabilities as well as management techniques to deal with problematic behaviours in all situations at school, not solely in the classroom. As mentioned, the theme of continuing education was emphasized as a need or service that is provided within context, along with formal training, offered through courses or workshops.

In this study, the idea of collaboration and ideal communication extended beyond the school environment to include the partnership with parents and families. Indeed, family involvement to monitor and facilitate students' educational program was found in a recent scoping review as an important principle to guide effective services (Anaby et al., 2019). While current innovative service delivery models (e.g. P4C) briefly address this aspect, more knowledge is needed about the specific processes in place to implement such an approach.

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Finally, ‘creating a positive climate’ or learning environments was also an important theme indicated by participants. Emotions and feelings of social participation were related to students’ experiences of their environment, as revealed in a recent study by Vetoniemi and Kärnä (2019); being physically integrated into a school is not sufficient to ensure full participation. Thus, staff members’ acknowledgement of the importance of creating a safe and positive environment is of particular significance in order to foster students’ inclusion and their sense of belonging in school.

There are limitations to this study. It drew on a convenience sample of 3 schools within the same province. However, these schools varied in terms of size and language supporting the applicability of the findings in the Quebec context which follows similar inclusive policies and incorporate an RTI approach. While we aimed to include all school staff, there were very few special educators and administrators in our sample, which could have supplemented to the breadth of the responses. Nonetheless, the emphasis of this study was on the perceptions of mainstream educators working in inclusive school settings. Further studies should elicit the specific perceptions of these groups particularly around the idea of sharing responsibilities across service providers and redefining roles.

In conclusion, findings can guide the development of effective intervention strategies for supporting school staff roles in the context of tiered models of service delivery. Understanding both macro-level and micro-level factors can assist in re-shaping school processes and in redefining role responsibilities of all stakeholders involved. This eventually will promote collaboration and build capacities among all school team members with the end outcome of best supporting students with special educational needs.

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