

RESEARCH

Open Access



Determining who is at-risk in the full-day kindergarten program

Suzanne Gooderham* 

*Correspondence:
sgooderh@uottawa.ca

Faculty of Education, University
Ottawa, 145 Jean-Jacques
Lussier, Ottawa, ON K1N 6N5,
Canada

Abstract

Research indicates that early intervention can improve long term outcomes for students who struggle early in school. However, in multi-layered organization such as the school system, many elements may come into play when deciding which students will receive support. This study examined these elements including system requirements and expectations at the provincial and school board levels, current practice in schools and classrooms, and the beliefs and knowledge of individuals surrounding the assessment and identification of at-risk students. Using a qualitative approach, 23 individuals were interviewed. Relevant provincial and school board documents as well as artifacts were gathered to provide further information. The findings indicate that many elements influence the identification of a student as at-risk including the characteristics of the student, and the particular classroom, school, and school board the student attends. The results of this study reveal a lack of clarity as well as differing perspectives and priorities when it comes to the concept of at-risk. The study findings contribute to our understanding of practice and beliefs around young students at-risk and how the interactions of the various elements involved impact the identification of individual students.

Keywords: At-risk, Early identification, Early intervention, Kindergarten

Introduction

Students who struggle early at school often continue to lag behind their peers and are at-risk for poorer long-term outcomes including school dropout and reduced employment opportunities (Heckman, 2008; Human Resources & Skills Development Canada, 2008) and an estimated 25% of children begin school with some difficulty that makes them less ready to learn than their peers (Offord Centre for Child Studies, 2009). There are many different understandings of what it means to be at-risk and factors that could lead a student to be less ready to learn than their peers. The focus of this study was the prediction and prevention of early school failure; therefore, the term at-risk is used in reference to students who are in danger of falling significantly behind their peers academically, but also considers the influence of social and emotional development on school success.

Intervening early before the risk factors become entrenched has been shown to be an effective way to avoid or mitigate poorer long-term outcomes (Conti et al., 2016; Heckman, 2008). Recognizing the value of early intervention, many jurisdictions have focused

on Early Childhood Education programs including kindergarten and pre-kindergarten to provide extra support in the early years (McCain et al., 2011; Stagg Peterson et al., 2016). However, while evidence supports early intervention (Conti et al., 2016; Heckman, 2008; Jones et al., 2015), in a complex, multi-layered organization such as a school system, many elements may influence which student receive support including the policies and practices at each level within the system as well as the personal knowledge and beliefs of individuals involved. This study explored these elements in the context of the full-day kindergarten (FDK) program implemented in the province of Ontario, Canada.

Literature review

Early childhood is a period which is extremely sensitive to both positive and negative influences making it a time of prime importance for both the prevention and mitigation of factors that may impede learning and success in school (Lovett et al., 2017). Intervening early when a child is struggling academically or with social and emotional issues is essential, as this can reduce the severity of some learning difficulties (Dion et al., 2010; Kratochwill et al., 2009; Vaughn & Fuchs, 2003). For example, in their research on students who were considered to be at risk for reading disabilities, Lovett et al. (2017) found that students who received interventions in Grade 1 had more positive long-term outcomes when compared to those who received interventions in later grades. Similarly, in their review of several longitudinal studies, Bradley et al. (2008) found evidence to support the efficacy of early intervention for emotional and behavior disorders.

The economic impact of early intervention has also been established by authors who argue that investing in programs that enhance early learning experiences can yield long term financial benefits in terms of reduced social problems that are often related to low skills and lack of academic success including crime, and teenage pregnancy (Heckman, 2008; Jones et al., 2015; Karoly et al., 2005). The earlier interventions take place, the more successful they are and the greater the beneficial economic impact (Heckman, 2008).

While early intervention is important, there are many elements that influence whether an individual student will receive support. To begin with, the student must be seen to be at-risk in some way. The understanding of at-risk is dependent on both the individual and shared beliefs and opinions about what is important for children to know and learn (Scott-Little et al., 2006). While some early identification processes seek to identify emotional and behavior issues (see Feeney-Kettler et al., 2011; Houri & Miller, 2020; Kratochwill et al., 2009), others focus more on early literacy skills (see Lovett et al., 2017). The concept of at-risk has been described as a social construct that can vary with context and is influenced by many factors, such as culture, institutional, and political forces (Brown et al., 2021; Scott-Little et al., 2006). The influence of these factors is evident in both the explicit policies used to guide kindergarten programs and in how the programs are enacted in classrooms and schools. While the different influences are not necessarily in conflict they can be at odds and create tensions when there are differing and sometimes competing forces are at play. Research suggests that there is a greater sense of efficacy amongst staff and higher student achievement when there is a sense of shared understanding and goals (Donohoo et al., 2018; Kurz & Knight, 2004).

Attempts at early identification are often imbedded in the policies used to guide kindergarten programs. However, such programs are subject to changing societal

and political pressures. Originally intended to promote school readiness and overall development, they are often “now the beginning of formal academic instruction” (Russell, 2011, p. 236). In the current atmosphere of standardization, demand for accountability, and the prevalence of wide-scale assessments, the focus on academic performance in the early grades has become stronger (Brown et al., 2021; Fesseha & Pyle, 2016). However, there is a concern that the pressure to increase scores filters down to the younger grades resulting in a narrowing of the curriculum toward the skills that will be tested (Hollingworth, 2007; Supovitz, 2009). The focus is most often on the specific literacy and numeracy skills most easily assessed in wide-scale assessments (Bailet et al., 2018; Frans et al., 2017; Meisels & Atkins-Burnett, 2006). An emphasis on academics and more teacher-directed learning may come at the expense of the child-centered, play-based learning considered most important in the social and emotional development of young children (Fesseha & Pyle, 2016; Lynch, 2015). This in turn also influences the understanding of students at-risk with those who are falling behind academically more likely to receive attention.

Regardless of the policies and theoretical basis behind the structure of the kindergarten, what happens in the classroom has much to do with the individual delivering the program (Fang, 1996). Research has shown that approaches to teaching and day-to-day decision-making of teachers are influenced by their own knowledge base as well as the beliefs they hold about the learning process (Fang, 1996; Isenberg, 1990; Neumann, 2016; Pajares, 1992).

Beliefs can influence teaching in several ways. In their systematic review of the literature, Basckin et al. (2021) found that teachers’ beliefs influenced their use of evidence-based practice in their teaching of students disabilities, while Jordan (2018) found that teachers’ beliefs about inclusion of students who were at-risk, ESL or identified with exceptionalities in their classrooms impacted their instructional practices. Alternately, while educators may have specific beliefs about what and how children should be taught, their actions can be constrained by the policies and practices dictated by colleagues, administrators, and curriculum expectations (Arby et al., 2015; Brown et al., 2008; Pyle & Danniels, 2017). For example, Parker and Neuhart-Pritchett (2006) found that teachers who prioritized play and play-based learning in kindergarten who felt pressured by their Grade 1 colleagues spent more time on targeted literacy and numeracy activities.

Recognizing the importance of early learning and early intervention, the province of Ontario, Canada implemented the full day kindergarten (FDK) program (Ontario Ministry of Education, 2010). The program provides universal access to full day junior (year 1) and senior (year 2) kindergarten for all children. Students are eligible to enter the program in the fall of the year they turn 4 years. Based on the advice of the expert panel report by Charles Pascal, the program places a strong emphasis on educational experiences that are child-centered and play-based, with an emphasis on assessment based on observations (Pascal, 2009). Another main feature is the inclusion of both a qualified classroom teacher and an Early Childhood Educator in the classroom. The goals of the FDK Program include not only promoting the development of skills that better prepare students for the primary grades but also providing opportunities for students who might

be at-risk to be identified early and to receive intensive intervention before moving into Grade 1 (Pascal, 2009).

While the value of effective early childhood education is well-recognized (Bradley et al., 2008; Lovett et al., 2017) and the FDK program has the potential to support young children, there are several factors that could influence which children might be considered in need of support. For example, school boards have existing protocols for early identification as required by the Education Act since 1982 (Ontario Ministry of Education, 1982). In the primary grades, these protocols are often based on meeting benchmark levels of curriculum expectations by specific points in the school year (Bennett, 2005). While assessments based on benchmark expectations are likely to identify students that are behind in specific academic skills, assessments based on continua of development are more likely to address a broader range of developmental domains. These differing assessments present a potential conflict between existing practices and the new program (Pyle & DeLuca, 2017).

As mentioned earlier, pressures of accountability have implications both for the types of assessments used and for the approaches to teaching and learning. The province of Ontario has a well-established system of mandatory testing in literacy and numeracy in Grades 3 and 6 (see Pinto, 2016 for an overview of the assessments). Pressures to improve test scores at the Grade 3 level have created pressure in the primary grades to spend more time on teacher-directed lessons (Parker & Neuhart-Pritchett, 2006). Assessment that can track progress leading toward the literacy and numeracy skills required to be successful on the tests have been implemented as early as JK (Pyle & DeLuca, 2017). While these skills may be important, there are concerns about narrowing the focus of the curriculum (Pinto, 2016) and questions about how the focus on academics is integrated into the play-based, child-centered program (Pyle & Danniel, 2017).

As stated, a key feature of the FDK program is the presence of both teachers and ECEs in the classroom. The knowledge base of these two groups has traditionally been quite different. While teachers' knowledge has generally been seen to include pedagogical knowledge, knowledge of curriculum, and educational philosophies, the "knowledge base of early childhood teachers...has been influenced by developmental psychology and construct of childhood based on philosophical view such as child-centeredness" (Hedges & Cullen, 2005, p. 67). This different background and training may lead to diverse views of teaching and learning. Researchers have found that teachers and ECEs do see their roles in the classroom differently (see Gananathan, 2011; Langford et al., 2018) with teachers generally being more responsible for planning and assessment and ECEs playing more of a supportive role. There is no indication of how these differing backgrounds and roles in the classroom might influence which children are deemed to be at-risk.

In summary, while research exists on the separate elements of early intervention, assessment in early childhood, and teacher beliefs about young students at-risk, how these elements interact to influence which children receive early intervention is not well-understood. There is especially true of early learning settings within schools, where there may be different and sometimes conflicting understandings and goals. The purpose of this study is to explore the elements that influence which children might be considered to be at-risk within the full-day kindergarten program (FDK program) in the province of Ontario, Canada. The current study will add to the limited research by exploring the

policy and practice as well as the beliefs and knowledge surrounding the assessment and identification of at-risk students at the various levels of the school system.

Methods

A qualitative research approach was used to explore policy, practice, and understandings around the identification of students at-risk in the FDK program in the province of Ontario. Data collection included document analysis, interviews, and artifact gathering. The collection of multiple types of data, especially when working within complex systems, provides a “richer evidence base and will, therefore, be likely to prove more fruitful in promoting new understandings and contributions to knowledge” (Sammons, 2010, p. 698). A further advantage is that the weaknesses and biases of individual methods can be mitigated or eliminated using more than one method. Multiple data sources can improve the validity of results providing triangulation when they converge (Greene, 2001; Johnson & Onwuegbuze, 2004). Ethics approval was sought from a total of eight publicly funded school boards. The school boards were chosen in an attempt to recruit schools that represented a variety of sizes and settings (i.e., urban versus rural). Two school boards granted permission. Through recruitment letters and follow-up telephone calls to school principals, all schools offering the FDK program in the two boards were invited to participate in the study. Two principals in one board and one in the other board agree to have their schools participate.

Document analysis

Document analysis gives the researcher insight into the research setting, provides data, and allows the researcher to verify findings through triangulation (Bowen, 2009). Provincial documents reviewed included the Ontario Education Act, which outlines regulations related to the identification of students at-risk, and those with exceptionalities (Ontario Ministry of Education, 2007) as well as the kindergarten curriculum that defines the program guidelines and learning expectations for each student (Ontario Ministry of Education, 2010).

While the provincial governments are responsible for the education system, school boards must interpret and enact provincial policies. How they chose to do so reveals local attitudes and priorities. School boards in Ontario are mandated to have in place special education plans that include early identification of students at-risk for learning difficulties (Ontario Ministry of Education, 2007). These procedures vary a great deal from one board to the next with many districts focusing their assessment and identification efforts solely on early literacy, while others include social and emotional development. A search of each board’s website was conducted for documents likely to reveal information related to early identification and assessment. These included: Special Education Plans, Early Literacy and Numeracy Initiatives, and Board Improvement Plans.

Interviews

To establish policy and practice within each school board, recruitment letters were sent to board personnel who were responsible for and/or knowledgeable about

protocols intended to assess and identify students at-risk (e.g., school superintendents, learning support teachers, curriculum coordinators). Two administrators in each board agreed to be interviewed ($n=4$). At the school level, principals ($n=3$), and special education teachers ($n=3$), as well as all of the kindergarten teachers ($n=7$) and ECEs ($n=6$) were invited to participate.. All those invited agreed to be interviewed.

The goal was to explore the participants' experiences, beliefs, and understandings around early identification in the FDK program.

In terms of demographics, two of the board administrators were female and two were male, one principal was female, two were male, two Special Education Resource Teachers (SERTs) were female, and one was male. The teachers and ECEs (13) were female. Ages ranged from 25 to 55+ years with 40–44 years being the most common recorded age. Most participants had been in their current position between 1 and 4 years, but many also indicated many years of additional experience in early learning settings. The average class size in one board was 20 students with one teacher and one ECE resulting in a student educator ratio of 10:1. The class sizes in the other board were somewhat larger at 28 students resulting in a student educator ration of 14:1.

Total $N=23$	Board 1, School 1 ($N=10$)	Board 1, School 2 ($N=4$)	Board 2, School 1 ($N=9$)
Position (#)	Board Admin = 2 Principal = 1 SERT = 1 Teacher = 3 ECE = 3	Principal = 1 SERT = 1 Teacher = 1 ECE = 1	Board Admin = 2 Principal = 1 SERT = 1 Teacher = 3 ECE = 2
Gender (#)	F = 9 M = 1	F = 3 M = 1	F = 6 M = 3
Average Age (Range in years)	25–54	40–54	30–55+
Years in Current Position	1–15	2–15	1–24
Addition Relevant Experience (years)	1–26	4–21	2–30
Education	B. Ed ECE Diploma	B.Ed B.A., ECE	B. Ed ECE Diploma
Other qualification (#)	7	2	7

Artifact gathering

Artifacts were gathered in the schools and in the target classrooms to provide evidence of practice and were used to confirm or disconfirm evidence gathered through interviews. Evidence of practice at the school level included methods of tracking student and whole class progress, assessment materials, which were focused on early literacy skills, and schedules dedicating time for assessment and discussion of results.

Data analysis

Data analysis began with organizing the documentation and transcribing interviews verbatim. Initial codes were established based on the key topics identified in the literature review (Miles & Huberman, 1994) and as the analysis progressed, the themes continued to evolve as they emerged from the data; the codes and themes were expanded and collapsed accordingly.

The concept of trustworthiness is used to determine the inherent value of qualitative research. Used in this way, trustworthiness can be discussed in a variety of ways including credibility, dependability, and transferability (Lincoln & Guba, 1985). The project included multiple methods of data collection, and multiple sources of information that were used to compare and cross-reference (triangulate) the data, thereby enhancing the validity and credibility of the findings (Yin, 2009). To further improve credibility, the transcripts were sent to participants resulting in a few minor corrections. Careful attention was paid to the research process and regular rechecking and cross-referencing during the data analysis and interpretation stages. In terms of transferability, the use of detailed, or thick, rich descriptions (Lincoln & Guba, 1985) of the context, participants, and processes as have been provided in this project, allows a reader to decide for themselves whether the findings are relevant. The findings are presented under the themes of: board policy, policy and practice, school and classroom assessment, early identification and intervention, and beliefs and knowledge.

Findings

Board policy

As required by provincial legislation, both boards had early identification protocols as part of their Special Education Plans outlined on their board website. These plans indicated steps to ensure successful transitions for students with exceptionalities who were already identified as well as tracking student progress with a variety of assessments with the aim of identifying students that might need extra support once they started school. The protocols varied between the boards with one presenting a clear definition of the term at-risk, listing a broad range of characteristics in several domains including physical, academic, social, and emotional development. Alternately, the tracking and assessment suggestions in the other board focused more on readiness for school as well as early literacy. Findings from both boards also revealed varying understandings of the board protocols and some lack of clarity around who was actually responsible for assessment and ongoing tracking of struggling students making it unclear as to how effectively the protocols were being acted upon. For example, one board administrator with responsibilities for Special Education did not believe that it was part of the Special Education department mandate:

I can't really comment on that part myself too much because I know that there are screeners in place that the teachers do, we don't mandate that. The Spec. Ed department does not say, "Every child must be screened to this tool." So, I really can't comment, now curriculum, if you spoke to them that would be more their piece.

Policy and practice

When participants were asked to discuss early identification, school administrators from both boards described enhanced kindergarten registration processes. According to one principal, "The first thing that we do is that we have a very comprehensive transition to school program so our board staff connects with community partners who identify students as having significant needs in one of those areas." These programs were aimed at

recognizing which students might need extra support and encouraging parent involvement by enhancing the parents' understanding of the school system and of services that might be available. According to the participants, these procedures would make it more likely that students with developmental delays and more obvious speech and language problems would be identified if parents took advantage of the program and were forthcoming with information.

Once children entered the school system the emphasis appeared to shift to identifying students that may lack literacy skills. Participants, including the board administrators tied more closely to the FDK program, the school administrators and teachers described screeners that targeted early literacy skills and assessments of reading. The assessments of reading were described as only for those students who showed readiness for this assessment; however, benchmark levels of achievement were mentioned for the end of senior kindergarten. In both boards there was lack of clarity around what level students needed to reach and, therefore, some confusion around which students would be considered at-risk if they did not meet the levels. Tracking of these assessments was part of the schools' overall assessment strategy of skills used for school improvement. This was demonstrated, at least in part, by School Improvement Plans from both boards.

School and classroom assessments

Exploring the assessments completed at the school level and how they were used to identify students that might need extra support helps to uncover consistencies and inconsistencies between policy and practice. Teachers from both boards indicated that they did complete the compulsory board assessments which were focused on early literacy skills, such as letter recognition, phonemic awareness as well as benchmark assessments of reading. They did, however, use other evaluation techniques to gain a complete picture of the students' strengths and needs. Teachers and ECEs in both boards relied more on observation and anecdotal notes than on the board-required assessments. It was clear from the responses of most ECEs in both boards that they believed that formal assessments were the responsibility of the regular classroom teachers. According to one ECE, "I don't do any of that, I don't know what is required." However, assessment in general was seen as a team effort with teachers more responsible for academic elements and ECEs more concerned with developmental factors:

I have the academic background and she's got the preschool background so it's different kinds of things. She can pick up on what they might be lacking in that I wouldn't even think about, whereas I pick up the academic...So then we are looking at the whole child not just one component.

Many assessments were described by participants from both boards; these varied from classroom to classroom rather than differing between the boards. In both boards, there was discussion by several participants about the use of assessments that might be more general and based on developmental continua. In one board, there was an effort to create a continuum that attempted to connect curriculum expectations to developmental stages which involved many individuals at various levels of the board as well as outside agencies.

There was also concern over mental health issues in both boards, and many participants made references to resources that would help with the identification of mental health issues. It was recognized in both boards that the training and experience of the teachers and ECEs in the classroom would have a great deal of impact on their ability to decide when a child might be experiencing difficulties in the area of mental health but also in all domains of development.

Identification and intervention in the schools

The decision as to which students are provided with support is a further indication of which characteristics are considered most important in determining who is at-risk. Therefore, it is important not only to look at the assessments being used but also what support is available for struggling students and the processes involved in providing these interventions.

While there were efforts in both boards to identify students with significant needs through the enhanced kindergarten registration there was also the recognition that other issues might not come to light until after the students started school. In one board, support for interventions within the school and classroom was provided by an early learning intervention team focused mostly on behavior and speech and language difficulties. There was a recognition that resources were limited, and therefore, only the more severe cases of behavior difficulties were dealt with by the team. A somewhat different emphasis was apparent in the other board with whole-school programs such as Roots of Empathy and Helping Hands in place to provide a more proactive method of support for social and emotional growth. Specific interventions for social skills and conflict resolution in the form of classroom support were mentioned as was planning future class structure to ensure students were with the peers that would most support their needs. A common vision was clear in this board with the principal, teachers and ECEs working as a team. The ECEs were included in professional development and staff meetings, not a common practice in the other board.

In terms of academic interventions, these were usually tied to the assessments required by the board which were focused on literacy. There was support provided by the SERT/ Student Support Teacher (SST), although the level and type of support differed from school to school. In one school there were differences between participants as which students would receive support. While the principal insisted their focus for intervention JK to 3, the Student Support Teacher said, "I work mainly with remedial situations, and I really don't do anything with the very young kids so the youngest kids I work with at this school would be grade two and up." Teachers agreed that there was little or no support from the SST for kindergarten classes. Furthermore, the ECEs in this school stated they were not involved in discussion beyond their own classroom and indicated a low level of understanding of early identification processes.

Beliefs and knowledge

While the policies and procedures establish general expectations and guidelines, individual understandings about which characteristics might be of most concern can influence the interpretation of policy and practice. To explore these concepts, participants were asked to think about students they would deem to be at-risk, both those

identified through board assessments and those that might be missed and describe their characteristics.

The most frequently noted concern from participants in both boards was related to students' social and emotional well-being, including the ability to form friendships and interact successfully with peers and being ready to conform to the behavior expectations of schools and classrooms. According to one participant:

Academic seems to glare at you but my philosophy has always been that if you can't function in a group and can't get along with your peers then you are not getting it, you are not in a good place for the rest of the school system.

Students who were not achieving academically were also of concern, but this was not mentioned as often as social and emotional difficulties in either board. In both boards, participants believed that boys were more likely to be at-risk than girls with one board official noting that the number of boys to girls being referred to the early learning team was 10 to 1.

Family situations were thought to put some children at-risk by participants, including families experiencing stress for some reason such as low socio-economic status, and/or disruptions such as divorce. It was also noted that parental understanding of school expectations, and/or willingness to accept that their child might need support could influence both whether a child might be at-risk as well as whether they might receive support. Specifically, parents could facilitate the identification process by accessing assessments privately or hinder the process by refusing to give permission for assessments or withholding pertinent information.

Some participants were also concerned that the classroom structure may be putting more students at risk. It was suggested that overcrowding and placing children in a space not specifically designed for young children (i.e., bathrooms and coat hooks outside the class making supervision difficult) may be contributing to an increase in behavior issues.

I think that the physical space makes a big difference. When you have 28 little people and at least two adults and sometimes more in a regular classroom that can be very crowded and that can have a big effect.

A number of other concerns were expressed connected to the identification process in general. First, there were questions around whether the teachers and/or ECEs were able to recognize the signs of delays in normal development and, therefore, might miss students that need support. Second, the long waiting times for services in these areas was noted with the emphasis on making sure supports were in place for Grade 1, implying that that is when "real" learning starts. This is interesting considering students are still expected to meet certain benchmark levels of early literacy in both Junior and Senior Kindergarten. Finally, several ECEs stated that they did not know the protocols involved in referring students for help outside the classroom. Because they were not always sure which students might be eligible to receive extra support, they may have been less likely to recommend a child for referral.

Questions around whether the assessments required by the boards were consistent with the philosophy of the child-centered, play-based FDK program were also raised. One teacher commented:

So, it seems a little bit contradictory because our whole first term we comment on social and personal and then we do a letter assessment that we enter the data in for, so it kind of seems a little bit odd.

While another was concerned about the impact on students of these assessments:

The board is asking that by the end of SK they be at level 5, that is what we are aiming for, and that is fine but with all these assessments, how can you tell a child, if they are not at level 5 by the end of kindergarten, they are a failure already?

It was also believed that the assessments and especially the subsequent interventions would only support the most severe cases and those whose behavior was most disruptive. Concerns were also expressed that the assessment missed other key areas of concern; participants specifically mentioned math, oral language, and fine motor skills.

Shared understanding of who is at risk

Levels of shared understanding varied between the two boards. The alignment of beliefs and practice was clearest in the school that focused on social and emotional well-being. The principal, SERT, teachers and ECEs were very clear that they had a common vision and considered social and emotional growth the most important factor for young students. They also believed that they had ample opportunity to discuss their concerns about individual students, that the SERT was available to support them. Structural features such as planning future classes to ensure students could maintain friendships and including ECEs in professional development and staff meetings supported the shared vision. As cited in the review of literature, this is shared understanding is positively related to both classroom quality (McGinty et al., 2008) and overall school effectiveness (Donohoo et al., 2018).

In contrast, the school in the other school board demonstrated less consistency of beliefs shared goals. While there were concerns about social and emotional development, there was a common focus on academic concerns with most agreeing that they discussed at-risk students on a regular basis in staff meetings and in school learning team meetings. However, there were differences between participants as to levels of support. While the principal insisted their focus for intervention JK to 3, the Student Support Teacher said:

I work mainly with remedial situations, and I really don't do anything with the very young kids so the youngest kids I work with at this school would be grade two and up, so I'm between grade 2 and 6 right now. (SST)

Teachers agreed that there was little or no support from the SST for Kindergarten classes.

Furthermore, the ECEs in this school stated they were not involved in discussion as they did not attend staff meetings and were not included in professional development. These ECEs indicated a much lower level of understanding of early identification processes. Considering the research mentioned above, it is possible that this lack of clarity of purpose and beliefs and shared goals may be having a negative impact on the staff's ability to effectively identify students at-risk.

Discussion

The purpose of this research project was to investigate the elements that influence the identification of at-risk students in the full-day kindergarten program in Ontario. As has been stated, students who struggle early at school often continue to lag behind their peers and are at-risk for poorer long-term outcomes (Heckman, 2008; Human Resources & Skills Development Canada, 2008; Jones et al., 2015); early intervention is an effective way to support at-risk students and achieve more positive outcomes (Heckman, 2008; Sutherland et al., 2008). However, the processes of early identification and intervention vary a great deal and are not always clear (Underwood, 2012). A qualitative research approach was adopted with the goal of providing insight that might be used to direct policy and practice.

The elements include the policies and practices at the school board and school levels as well as the knowledge and beliefs of the 23 individuals interviewed, including teachers and ECEs working in kindergarten classrooms as well as principals, special education teachers and board administrators. The participants generally voiced a belief in the importance of early intervention, but many also expressed frustrations with the impediments and limitations on their ability to support struggling young learners.

Overall, in terms of both boards' policies and assessment expectations, students with pre-existing issues would likely be recognized as being at-risk, especially considering the enhanced kindergarten registration. Existing research clearly supports the boards' attempts at early identification and intervention as this is considered essential for improving long-term outcomes (Falk, 2010; McCain et al., 2011). In both boards, there was some lack of clarity around roles and responsibilities for early identification at the board level between the Special Education and Curriculum departments. There also seemed to be lack of shared understanding of which students should receive support in one of the schools. This would be counter to the literature indicates that shared goals and understanding can lead to a greater sense of efficacy amongst teachers and higher student achievement (Donohoo et al., 2018; Kurz & Knight, 2004).

The focus on literacy reflected in the board required assessments is common practice (Bailey & Drummond, 2006;) but is also problematic given that the research supporting the predictive value of screening protocols is somewhat mixed (e.g., Frans et al., 2017; Meisels & Atkins-Burnett, 2006;). While there is evidence of a connection between early academic skills and later academic success (Davies et al., 2016; Fitzpatrick et al., 2018;), the narrow focus may be missing key elements that are important for academic success. Specifically, interpersonal skills and work-related social skills have also been found to be predictors of academic success, a trend which continues well into the later grades (McClelland & Cameron, 2011; Romano et al., 2010).

The concerns expressed by some about the appropriateness of the board assessments using benchmark targets and conducted on a fixed schedule is also contrary to that outlined in the FDK program (Ontario Ministry of Education, 2010) which emphasizes ongoing assessment of all domains of development based on observations of normal classroom activities. In fact, a wider ranging, holistic assessment was suggested by the Best Start Expert Panel on Early Learning (2007) as well as by Pascal (2009). Support for ongoing assessment based on developmental continua has also been expressed by others (e.g., Frans et al., 2017; Meisels & Atkins-Burnett, 2006;

Neisworth & Bagnato, 2004) who argue that any assessment of young children must be sensitive to the variable nature of development at this age. Teachers completed board assessments but relied more on their own observations and judgement than on the board protocols which is consistent with evidence in the literature (Feldman, 2010; Meisels et al., 2001). The variety of assessments used, especially those used, while students are engaged in normal everyday activities, is also supported in the literature (Davies et al., 2016; Karelitz et al., 2010; Meisels & Atkins-Burnett, 2006; Neisworth & Bagnato, 2004). This practice is more consistent with assessment practices outlined in the FDK program as well as those recommended by the Best Start Expert Panel (2006) and Pascal (2009).

Although assessment was seen as a team effort, classroom teachers were considered to be more responsible for academic elements and the screenings required, while ECEs were more likely to be attending to social and emotional elements. While some participants thought that this collaborative approach worked well, some ECEs did not feel they were included in decision making and lacked knowledgeable about the types of assessments and supports available for students. Research by Underwood et al. (2016) and Langford et al. (2018) found that there is still a great deal of variation in how well these teaching teams work with perceived collaboration not always matching actual practice and that there is often confusion over roles and responsibilities amongst teachers, ECEs, and principals (Shahbazi & Salinitri, 2016; Underwood et al., 2016).

The study found a variety of ideas and beliefs of who is at-risk. While a focus on academic and cognitive skills has been the more traditional view (Davies et al., 2016; Simner, 1995) the research shows that many people, especially teachers, are more concerned about social and emotional skills (Blair & Diamond, 2008; Frans et al., 2017; Miller & Goldsmith, 2017). As was found in this study, research points to more concern about the readiness of boys rather than girls. Smeets and Roeleveld (2016) found that boys were more often referred for special education than girls and Barnett (2018) found that boys who were perceived as playful were considered less socially competent and more disruptive. It was noted that these judgments often became more negative as the children moved from kindergarten to grade 3. Childs and McKay (2001) found that boys from low SES families began school at a disadvantage, because teachers perceived them as more distractible and difficult to teach. Although the predictive quality of low SES on later academic success became less valid after Grade 2, the labels placed on the specific boys early in their school careers did appear to 'stick' (p. 304).

Some educators in this study were concerned that the classroom structure might be creating risk, this has been noted in other research, particularly by Vanderlee et al. (2012). They noted that "one of the biggest concerns for educators and parents was the amount of classroom space for implementing FDELK program" (p. 50). Overcrowding and large class sizes made it difficult to arrange the classroom in a way that supported play-based learning and was thought to contribute to emotional exhaustion and limit optimal engagement and learning. Concerns about space and class size were also noted by Fesseha and Pyle (2016) in their exploration of teachers' perspectives about play-based learning in the FDK program.

Research evidence indicates that educators' practice is very much related to their personal beliefs (Fang, 1996; Jordan, 2018; Rimm-Kaufman & Sawyer, 2004); therefore,

teachers are more likely to balance the need to complete the board assessments with their own view of what is important when deciding which students are at-risk. This will of course be impacted by their ability to provide support to these students in the classroom and/or access interventions from other sources. This may also be influenced by the pressure to prepare students for Grade 1, a pressure which was acknowledged in the literature (Fesseha & Pyle, 2016; Kagan & Kaurez, 2007; Vanderlee et al., 2012).

Limitations

Several limitations in the current research should be noted. Although an attempt was made to include a wider range of settings, the schools and school boards included were situated in small urban communities and were similar in enrolment numbers. Despite the similarities the two boards did have different early identification protocols and it was felt that there was sufficient variation to provide a range of understandings and experiences for the research project. However, it must be recognized that the experiences in other boards such as those in truly rural settings, or in larger, highly populated urban areas may be very different.

The study was based on qualitative research methods with data collected largely through interviews. While interviews provide insight into the perceptions and understandings of those involved, a deeper understanding would be gained through more prolonged observation in the classroom. Specific quantitative information, including the number of students identified as at-risk, the reasons for concern as well as any follow-up interventions would provide more clarity about the practice of early identification.

Conclusion and recommendations

The focus of this study was the prediction and prevention of early school failure. The findings lead to a number of recommendations that could improve the identification of students who might be at-risk. Whether or not a child is considered to be at-risk will depend on their own characteristics but, as has been found in the current study, will depend just as much on the classroom, school, and board in which they are located. A child with reading difficulties is more likely to be identified for those difficulties in a school board, where the focus is on readiness; however, the narrow focus of the assessments used may not target other specific issues, such as mathematics or written work. Alternately, a child who is withdrawn or is reluctant to participate will more likely be of concern in school boards and schools that have a stronger focus on social and emotional development but may not receive extra attention in schools, where academics are the main concern. There is a need for a more global understanding of which students might need support. While academic skills are undoubtedly necessary for school success, the research is clear that other factors are equally important. Screening to identify which students might be falling behind their peers has been found to be effective; however, such screening should include a broad range of skills and abilities, such as social and emotional skills and self-regulation. While school boards may have different priorities, the mandating of early identification protocols, already entrenched in the Education Act, should be updated and clarified, so that children who are falling behind are identified regardless of which school board they attend.

Concerns were expressed about the assessments educators were expected to use in the kindergarten classroom to track student progress and identify those that might be behind their peers. More discussion around the age appropriateness of these assessments is needed with consideration to the unrealistic expectation they might be putting on some students and the pressure they may be placing on educators to focus more on academics than on a play-based and child-centered approach. Due to the variability of development in young children, completing these assessments at a specific time in the school year is also likely to produce both false positives and negatives. Students who just need more time to develop a specific skill may be identified unnecessarily, while those who appear to test well may start to struggle later in the year. As recommended by the National Association for the Education of Young Children, assessment needs be completed on an ongoing basis and in a setting that is part of a student's everyday activities. Identification of students at-risk should be based on multiple sources of data compiled over time. A key factor in this ongoing assessment would be further training for both ECEs and teachers in the assessment strategies and in early childhood development. Understanding the progression of development of young children would allow educators to make more accurate judgments about which students might not be progressing as expected and support timely early intervention which could improve long-term outcomes.

Acknowledgements

Not applicable.

Author contributions

Not applicable.

Funding

Not applicable.

Availability of data and materials

Interview data is not available—the participants in the study did not give consent for their data to be shared publicly.

Declarations

Competing interests

There are no competing interests.

Received: 14 February 2022 Accepted: 5 March 2023

Published online: 15 March 2023

References

- Abry, T., Latham, S., Bassok, D., & LoCasale-Crouch, J. (2015). Preschool and kindergarten teachers' beliefs about early school competencies: Misalignment matters for kindergarten adjustment. *Early Childhood Research Quarterly*, 31, 78–88. <https://doi.org/10.1016/j.jecresq.2015.01.001>
- Baillet, L. L., Zettler-Greeley, C., & Lewis, K. (2018). Psychometric profile of an experimental emergent literacy screener for preschoolers. *School Psychology Quarterly*, 33(1), 120–136. <https://doi.org/10.1037/spq0000222>
- Bailey, A. L., & Drummond, K. V. (2006). Who is at risk and why? Teachers' reasons for concern and their understanding and assessment of early literacy. *Educational Assessment*, 11(3–4), 149–178.
- Barnett, L. A. (2018). The education of playful boys: class clowns in the classroom. *Frontiers in Psychology*, 9, 232–232. <https://doi.org/10.3389/fpsyg.2018.00232>
- Basckin, C., Strnadová, I., & Cumming, T. M. (2021). Teacher beliefs about evidence-based practice: A systematic review. *International Journal of Educational Research*, 106, 101727. <https://doi.org/10.1016/j.ijer.2020.101727>
- Bennett, J. (2005). Curriculum issues in national policy-making. *European Early Childhood Education Research Journal*, 13(2), 5–23. <https://doi.org/10.1080/13502930585209641>
- Best start expert panel on early learning. (2007). *Early learning for every child today: A framework for Ontario's early childhood settings*. Ontario Ministry of Children and Youth Services. Retrieved from <http://www.children.gov.on.ca/htdocs/English/topics/>

- Blair, C., & Diamond, A. (2008). Biological processes in prevention and intervention: The promotion of self-regulation as a means of preventing school failure. *Development and Psychopathology*, 20, 899–911. <https://doi.org/10.1017/S0954579408000436>
- Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal*, 9(2), 27–40. <https://doi.org/10.3316/QRJ0902027>
- Bradley, R., Doolittle, J., & Bartolotta, R. (2008). Building on the data and adding to the discussion: The experiences and outcomes of students with emotional disturbance. *Journal of Behavioral Education*, 17, 4–23. <https://doi.org/10.1007/s10864-007-9058-6>
- Brown, C. P., Ku, D. H., & Barry, D. P. (2021). Making sense of instruction within the changed kindergarten: Perspectives from preservice early childhood educators and teacher educators. *Journal of Early Childhood Teacher Education*, 42(1), 20–52. <https://doi.org/10.1080/10901027.2020.1726532>
- Brown, E. T., Mulfese, V. J., & Molfese, P. (2008). Preschool learning in literacy and mathematics: Impact of teacher experience, qualifications, and beliefs on an at-risk sample. *Journal of Education for Students Placed at Risk*, 13, 106–126. <https://doi.org/10.1080/10824660701860474>
- Childs, G., & McKay, M. (2001). Boys starting school disadvantaged: Implications from teachers' ratings of behaviour and achievement in the first two years. *British Journal of Educational Psychology*, 71, 303–314.
- Conti, G., Heckman, J. J., & Pinto, R. (2016). The effects of two influential early childhood interventions on health and healthy behaviour. *The Economic Journal*, 126(596), F28–F65. <https://doi.org/10.1111/ecoj.12420>
- Davies, S., Janus, M., Duku, E., & Gaskin, A. (2016). Using the early development instrument to examine cognitive and non-cognitive school readiness and elementary student achievement. *Early Childhood Research Quarterly*, 35, 63–75. <https://doi.org/10.1016/j.jecresq.2015.10.002>
- Dion, E., Brodeur, M., Gosselin, C., Campeau, M., & Fuchs, D. (2010). Implementing research-based instruction to prevent reading problems among low-income students: Is earlier better? *Learning Disabilities Research and Practice*, 25(2), 87–96.
- Donohoo, J., Hattie, J., & Eells, R. (2018). The power of collective efficacy (Fostering a collaborative school culture). *Educational Leadership*, 75(6), 40–44.
- Falk, B. (2010). Supporting the education and care of young children: Putting into practice what we know. In A. Hargreaves, A. Lieberman, & M. Fullan (Eds.), *Second international handbook of educational change* (pp. 933–951). Springer. https://doi.org/10.1007/978-90-481-2660-6_52
- Fang, Z. (1996). A review of research on teacher beliefs and practices. *Educational Research*, 38(1), 47–65.
- Feeney-Kettler, K. A., Kratochwill, T. R., & Kettler, R. J. (2011). Identification of preschool children at risk for emotional and behavioral disorders: Development and validation of a universal screening system. *Journal of School Psychology*, 49, 197–216.
- Feldman, E. N. (2010). Benchmarks curricular planning and assessment framework: Utilizing standards without introducing standardization. *Early Childhood Education Journal*, 38(3), 233–242. <https://doi.org/10.1007/s10643-010-0398-9>
- Fesseha, E., & Pyle, A. (2016). Conceptualising play-based learning from kindergarten teachers' perspectives. *International Journal of Early Years Education*, 24(3), 361–377. <https://doi.org/10.1080/09669760.2016.1174105>
- Fitzpatrick, C., Côté-Lussier, C., & Pagani, L. (2018). Corrigendum : Ready for kindergarten: Are intelligence skills enough? *South African Journal of Childhood Education*, 8(1), 1–8. <https://doi.org/10.4102/sajce.v8i1.633>
- Frans, N., Post, W. J., Huisman, M., Oenema-Mostert, I. C., Keegstra, A. L., & Minnaert, A. E. (2017). Early identification of children at risk for academic difficulties using standardized assessment: Stability and predictive validity of preschool math and language scores. *European Early Childhood Education Research Journal*, 25(5), 698–716. <https://doi.org/10.1080/1350293X.2017.1356524>
- Gananathan, R. (2011). Implications of full day kindergarten program policy on early childhood pedagogy and practice. *International Journal of Child Care and Education*, 5(2), 33–45.
- Greene, J. C. (2001). Mixing social inquiry methodologies. In V. Richardson, *Handbook of research on teaching* (4th ed., pp. 251–297). American Educational Research Association.
- Heckman, J. (2008). The case for investing in disadvantaged young children. In *Big Ideas for Children: Investing in Our Nation's Future* (pp. 49–58). In Focus. Retrieved from <http://www.heckmanequation.org/system/files/HeckmanInvestinginYoungChildren.pdf>
- Hedges, H., & Cullen, J. (2005). Subject knowledge in early childhood curriculum and pedagogy: Beliefs and practices. *Contemporary Issues in Early Childhood*, 6(1), 66–79.
- Hollingworth, L. (2007). Five ways to prepare for standardized tests without sacrificing best practice. *The Reading Teacher*, 61(4), 339–342. <https://doi.org/10.1598/RT.61.4.7>
- Houri, A. K., & Miller, F. G. (2020). A Systematic Review of Universal Screeners Used to Evaluate Social-Emotional and Behavioral Aspects of Kindergarten Readiness. *Early Education and Development*, 31(5), 653–675. <https://doi.org/10.1080/10409289.2019.1677132>
- Human Resources and Skills Development Canada. (2008). *Advancing the inclusion of people with disabilities*. Retrieved October 8, 2010, from http://www.hrsdc.gc.ca/eng/disability_issues/reports/fdr/2008/fdr_2008.pdf
- Isenberg, J. P. (1990). Teachers' thinking and beliefs and classroom practice. *Childhood Education*, 66(5), 322–327.
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33(7), 14–36. <https://doi.org/10.3102/0013189X033007014>
- Jones, D. E., Greenberg, M., & Crowley, M. (2015). Early social-emotional functioning and public health: The relationship between kindergarten social competence and future wellness. *American Journal of Public Health* (1971), 105(11), 2283–2290. <https://doi.org/10.2105/AJPH.2015.302630>
- Jordan, A. (2018). The supporting effective teaching project: 1. Factors influencing student success in inclusive elementary classrooms. *Exceptionality Education International*, 28(3), 10–27.
- Kagan, S., & Kaurez, K. (2007). Reaching for the whole: Integration and alignment in early education policy. In R. C. Pianta, M. J. Cox, & K. L. Snow (Eds.), *School readiness & the transition to kindergarten in the era of accountability* (pp. 11–30). Paul H. Brooks.

- Karelitz, T. M., Parish, D. M., Yamada, H., & Wilson, M. (2010). Articulating assessments across childhood: The cross-age validity of the desired results developmental profile—revised. *Educational Assessment*, 15(1), 1–26. <https://doi.org/10.1080/10627191003673208>
- Karoly, L., Kilburn, R., & Cannon, J. (2005). *Early childhood interventions: Proven results, future promise*. RAND Corporation.
- Kratochwill, T. R., McDonald, L., Levin, J. R., Scalia, P. A., & Coover, G. (2009). Families and schools together: An experimental study of multi-family support groups for children at risk. *Journal of School Psychology*, 47, 245–265.
- Kurz, T. B., & Knight, S. L. (2004). An exploration of the relationship among teacher efficacy, collective teacher efficacy, and goal consensus. *Learning Environment Research*, 7, 111–128.
- Langford, R., Di Santo, A., Valeo, A., Underwood, K., & Lenis, A. (2018). The innovation of Ontario full-day kindergarten educator teams: Have they reproduced the split systems of care and education? *Gender and Education*, 30(5), 569–586. <https://doi.org/10.1080/09540253.2016.1258456>
- Lincoln, Y., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage.
- Lovett, M. W., Frijters, J. C., Wolf, M., Steinbach, K. A., Sevcik, R. A., & Morris, R. D. (2017). Early intervention for children at risk for reading disabilities: The impact of grade at intervention and individual differences on intervention outcomes. *Journal of Educational Psychology*, 109(7), 889–914. <https://doi.org/10.1037/edu0000181>
- Lynch, M. (2015). More play, please: The perspective of kindergarten teachers on play in the classroom. *American Journal of Play*, 7(3), 347–370.
- McCain, M., Mustard, F., & McCuaig, K. (2011). *Early years study 3: Making decisions, taking actions*. Margaret & Wallace McCain Family Foundation.
- McClelland, M. M., & Cameron, C. E. (2011). Self-regulation and academic achievement in elementary school children. *New Directions for Child and Adolescent Development*, 2011(133), 29–44. <https://doi.org/10.1002/cd.302>
- McGinty, A. S., Justice, L., & Rimm-Kaufman, S. E. (2008). Sense of school community for preschool teachers serving at-risk children. *Early Education and Development*, 19(2), 361–384. <https://doi.org/10.1080/10409280801964036>
- Meisels, S., DiPrima Bickel, D., Nicholson, J., Xue, Y., & Atkins-Burnett, S. (2001). *Trusting teachers judgments: A validity study of a curriculum-embedded performance assessment in kindergarten—grade 3: Archive #1–12*. CIERA. Retrieved from www.ciera.org/library/archive/index.html
- Meisels, S. J., & Atkins-Burnett, S. (2006). Evaluating early childhood assessments: A differential analysis. In K. McCartney & D. Phillips (Eds.), *The Blackwell handbook of early childhood development* (pp. 533–549). Blackwell.
- Miles, M., & Huberman, A. (1994). *Qualitative data analysis: A sourcebook of new methods* (2nd ed.). Sage.
- National Association for the Education of Young Children (NAEYC). (2022). *Developmentally appropriate practice in early childhood programs serving children from birth through age 8*. Author. Retrieved from <http://www.naeyc.org>
- Neisworth, J., & Bagnato, S. J. (2004). The mismeasure of young children: The authentic assessment alternative. *Infants and Young Children*, 17(3), 198–212.
- Neumann, J.W. (2016). Examining mandated testing, teachers' milieu, and teachers' knowledge and beliefs: Gaining a fuller understanding of the web of influence on teachers' classroom practices. *Teachers College Record* (1970), 118(2), 1–50. <https://doi.org/10.1177/016146811611800209>
- Offord Centre for Child Studies. (2009). *School readiness to learn national SK cohort results: Based on the Early Development Instrument data collection for senior kindergarten in Canada, Spring 2008*. Retrieved from http://www.offordcentre.com/readiness/pubs/2008_11_12_National_SK_Cohort.pdf
- Ontario Ministry of Education. (1982). *Policy/ program memorandum No. 8*. Retrieved January 11, 2011, from Ontario Ministry of Education: <http://www.edu.gov.on.ca/extra/eng/ppm/8.html>
- Ontario Ministry of Education. (2007). *The education act on special education*. Retrieved from <http://www.edu.gov.on.ca/eng/general/elemsec/speced/edact.html>
- Ontario Ministry of Education. (2010). *Full-day early learning- kindergarten program: Draft version*. Queen's Printer for Ontario.
- Pajares, F. M. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research*, 62(3), 307–332.
- Parker, A., & Neuhart-Pritchett. (2006). Developmentally appropriate practice in kindergarten: Factors shaping teacher beliefs and practice. *Journal of Research in Childhood Education*, 21(1), 63–76.
- Pascal, C. E. (2009). *With our best future in mind: Implementing early learning in Ontario*. Ontario Ministry of Education.
- Pinto, L. E. (2016). Tensions and fissures: The politics of standardised testing and accountability in Ontario, 1995–2015. *The Curriculum Journal*, 27(1), 95–112. <https://doi.org/10.1080/09585176.2016.1140061>
- Pyle, A., & Danniels, E. (2017). A continuum of play-based learning: The role of the teacher in play-based pedagogy and the fear of hijacking play. *Early Education and Development*, 28(3), 274–289. <https://doi.org/10.1080/10409289.2016.1220771>
- Pyle, A., & Deluca, C. (2017). Assessment in play-based kindergarten classrooms: An empirical study of teacher perspectives and practices. *Journal of Educational Research*, 110(5), 457–466. <https://doi.org/10.1080/00220671.2015.1118005>
- Rimm-Kaufman, S. E., & Sawyer, B. E. (2004). Primary-Grade teachers' self-efficacy beliefs, attitudes toward teaching, and discipline and teaching practice priorities in relation to the Responsive Classroom approach. *The Elementary School Journal*, 104(1), 321–341. Retrieved from <http://www.jstor.org/stable/3202945>
- Romano, E., Babchishin, L., Pagani, L. S., & Kohen, D. (2010). School readiness and later achievement: Replication and extension using a nationwide Canadian survey. *Developmental Psychology*, 46(5), 995–1007. <https://doi.org/10.1037/a0018880>
- Russell, J. L. (2011). From child's garden to academic press: The role of shifting institutional logics redefining kindergarten education. *American Educational Research Journal*, 48(2), 236–267. <https://doi.org/10.3102/0002831210372135>
- Sammons, P. (2010). The contributions of mixed methods to recent research of educational effectiveness. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of methods in social & behavioral research* (pp. 697–724). Sage Publications.
- Scott-Little, C., Kagan, S. L., & Frelow, V. S. (2006). Conceptualization of readiness and the content of early learning standards: The intersection of policy and research. *Early Childhood Research Quarterly*, 21(1), 153–173. <https://doi.org/10.1016/j.jecresq.2006.04.003>

- Shahbazi, S., & Salinitri, G. (2018). Full day early learning kindergarten program team: Perspectives from the principal. *Early Childhood Education Journal*, 44, 681–691. <https://doi.org/10.1007/s10643-015-0754-x>
- Simner, M. L. (1995). *Predicting and preventing early school failure: Classroom activities for the preschool child*. Canadian Psychological Association.
- Smeets, E., & Roeleveld, J. (2016). The identification by teachers of special educational needs in primary school pupils and factors associated with referral to special education. *European Journal of Special Needs Education*, 31(4), 423–439. <https://doi.org/10.1080/08856257.2016.1187879>
- Stagg Peterson, S., Anderson, J., Kendrick, M., McTavish, M., Budd, K., Mayer, D., McIntyre, L., Ntelioglou, B. Y., & Riehl, D. (2016). Examining rhetorics of play in curricula in five provinces: Is play at risk in Canadian kindergartens? *Canadian Journal of Education*, 39(3), 1–26.
- Supovitz, J. (2009). Can high stakes testing leverage educational improvement? Prospects from the last decade of testing and accountability reform. *Journal of Educational Change*, 10, 211–227. <https://doi.org/10.1007/s10833-009-9105-2>
- Sutherland, K., Lewis-Palmer, T., Stichter, J., & Morgan, P. L. (2008). Examining the influence of teacher behavior and classroom context on the behavioral and academic outcomes for students with emotional or behavioral disorders. *The Journal of Special Education*, 41(4), 223–233. <https://doi.org/10.1177/002246690731037>
- Underwood, K., Di Santo, A., Valeo, A., & Langford, R. (2016). Partnerships in full-day kindergarten classrooms: Early childhood educators and kindergarten teachers working together. *Journal of Childhood Studies*, 41(1), 36–45. <https://doi.org/10.18357/jcs.v41i1.15696>
- Underwood, K. (2012). Mapping the early intervention system in Ontario. *Canada. International Journal of Special Education*, 27(2), 126–136.
- Vanderlee, M., Youmans, S., Peters, R., & Eastabrook, J. (2012). *Final report: Evaluation of the implementation of the Ontario full-day early learning-kindergarten program*. Queen's University. Retrieved from <http://www.edu.gov.on.ca/kingerg>
- Vaughn, S., & Fuchs, L. (2003). Redefining learning disabilities as inadequate response to instruction: The promise and potential problems. *Learning Disabilities Research & Practice*, 18(3), 137–146. <https://doi.org/10.1111/1540-5826.00070>
- Yin, R. K. (2009). *Case study research: Design and methods* (4th ed.). Sage Publications.

Publisher's Note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Submit your manuscript to a SpringerOpen[®] journal and benefit from:

- Convenient online submission
- Rigorous peer review
- Open access: articles freely available online
- High visibility within the field
- Retaining the copyright to your article

Submit your next manuscript at ► [springeropen.com](https://www.springeropen.com)
