

Teachers' Perceptions of School Readiness
Relative to Revised Nova Scotia Policy on Early School Entrance

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Dedication

This project is dedicated to my family and friends, from whom I have been given endless support, encouragement, and love. I would also like to thank Matthew for supporting me throughout the last two years, and ensuring that I took time to enjoy life outside of my thesis.

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Abstract

This study investigated teachers' perceptions of the recent change in school entry policy in Nova Scotia. The introduction of this policy in 2008 allowed children to enter school at the age of 4 years, 9 months. Consequently, the 2008-2009 Grade Primary class included students within the age range of 4 years, 9 months to 5 years, 11 months. The findings of this study demonstrated that teachers' perceptions of students' abilities, compared to other classes taught, were not significantly different from expected. However, significant differences were found in relation to teachers' perceptions of the policy change. For example, 75% of Primary teachers and 90% of Grade One teachers perceived that the revised cutoff date made a difference to the level of student readiness. Significant differences were also found when teachers were asked about key early curriculum topics. For example, 100% of Primary teachers and 90% of Grade One teachers perceived that letter recognition is a key component of an early curriculum. These aforementioned results are discussed in relation to teacher characteristics, development of pre-primary programs, and professional development.

Glossary

1. **Cut-off date:** A given date in which a child must turn a certain age in order to attend school. Here in Nova Scotia this age is five.
2. **Young-for-grade:** Students who are young-for-grade are those who were born in the latter part of the year, making them the youngest in their class/grade.
3. **Old-for-grade:** Students who are old-for-grade are those who were born in the first part of the year, or were withheld from school entry for an extra year, making them the oldest in their class/grade.

Chapter 1: Introduction

Teacher's Perceptions of School Readiness

Relative to Revised Nova Scotia Policy on Early School Entrance

Every year, children around the globe anxiously await the beginning of a new school year. The age at which children enter school varies from country to country (Meisels, 1992). In Germany, Russia, Australia, Japan, and Switzerland the age of entry is six, and in Sweden, children begin school at age seven. Alternatively, in England, similar to here in Canada, children begin school between the ages of four and five. Within Canada, the cutoff date for entry into school is determined by each province. Within Nova Scotia, the cutoff date has recently been changed from October 1st to December 31st (Nova Scotia Government, 2008). This change was made in order to align the Nova Scotia age of school entry with the rest of Canada.

There has been great debate over the age at which children should begin school (Stipek, 2002). One side of the debate notes that children should begin early in the education system, since they benefit from the instructional time they receive, which in turn supports academic success. The other side of the debate argues that children who begin school at an older age have more developed cognitive skills and, as a result, demonstrate better academic performance. Thus the question arises: are there differences that exist in the academic, language, social, behavioural, and cognitive functioning of children who start school early and those who start later? The information presented below will examine each of these areas in relation to school readiness.

Chapter 2: Literature Review

School Readiness

Prior to exploring potential differences in academic, social, cognitive, and language functioning between young-for-grade and old-for-grade students, it is important to examine what school readiness is, what readiness programs exist, and the impact of these programs on school attainment. According to the North Vancouver School District (n.d.), school readiness is defined as the preparedness of a child to enter school and to learn. A child's readiness is typically determined by his or her ability in the following areas: letter recognition, letter-sound correspondence, phonological awareness, emergent reading, emergent writing, basic mathematical concepts, and metacognitive aspects of literacy (Rayner, Foorman, Perfetti, Pesetsky, & Seidenberg, 2001; McDonald-Connor & Morrison, 2004). These skills are used as measures of readiness as they are considered the foundation for academic success. In particular, research has found that children who know their letters when they start school are stronger readers in Grade One compared to students who do not know their letters prior to attending school (Catts, 1997).

Furthermore, research has shown that the first six years of life are the most influential and important in a child's development (Founders Network, 1999; Coates, 2004; Rhode Island Kids Count, 2005). During this time, early childhood experiences influence brain development. In turn, these experiences impact a child's behaviour, learning, and how well he or she is able to function in the future. Thus, there are many factors which influence and contribute to a child's school readiness (Coates, 2004; Conner & Morrison, 2004). From a review of the literature, Coates, and Conner and Morrison identified contributing factors to children's school readiness, such as parental involvement in education, early childhood education programs, socio-culture,

parenting, and a child's early development of language skills, literacy, self-regulating behaviour, and positive interpersonal relationships. Thus, some children will be more ready to begin school than others due to differences in their environments and experiences.

This then begs the question: how much influence do environmental factors have on a child's level of school readiness? From a review of the literature on genetic and environmental influences on cognition, Patrick (2000) found that environmental influences account for 50% of a child's cognitive ability. Thus, while environmental factors play a significant role in the development of cognitive abilities, they are not the sole contributing factor. Twin studies have also found that shared environmental influences play a substantial role in the development of abilities, such as literacy, which contribute to school readiness (Oliver Dale, & Plomin, 2005; Lemelin, Boivin, Forget-Dubois, Dionne, Brendgen, Seguin et al., 2007). Based on the research literature, it appears that environmental factors play an important role in a child's cognitive development and how ready they are to attend school.

One environmental factor that has been identified and greatly studied in relation to school readiness is socioeconomic status (SES). Many of the early education and government funded programs were designed to reach low-income families (High Scope, 2009; The Child-Parent Centre and Expansion Program, 2004; Nova Scotia Department of Education, 2005; National Head Start Association, 2009). These programs were created since children from low-income families were more likely to begin school with limited language, social, and emotional abilities (Rhode Island Kids Count, 2005; Steensel, 2006). Research has shown that low SES families tend to have poor literacy environments compared to those from high SES families. During the 2002-2003 school year, three quarters of a million children were enrolled in pre-Kindergarten programs in the United States (Clifford, Bryant, & Early, 2005). Of these children, 53% were from families who lived below the poverty line. In addition, they fell below the

national average on tests of mathematics and language abilities. However, enrollment in a pre-kindergarten program enabled them to catch up to their peers who were not from low-income families. As a result, enrolling children from low-income families in pre-school programs increases their academic success compared to other children from low-income families who do not attend pre-school programs (Barnett, 1995 & 1998).

As previously mentioned, many pre-school programs were designed in order to reach low-income families (High Scope, 2009; The Child-Parent Centre and Expansion Program, 2004; Nova Scotia Department of Education, 2005; National Head Start Association, 2009). In the United States, four popular programs emerged: the Abecedarian Project, the Perry Preschool Program, the Chicago Child-Parent Centre (CPC), and the Head Start Program. Research on these four programs indicate that children who attend an early education program perform significantly better on measures of cognitive abilities and academic achievement compared to children who do not attend such a program (Gorey, 2001; Abbott-Shim, Lambert, & McCarty, 2003; Hauser-Cram, 2005). Furthermore, children who participated in these programs were also more likely to obtain more education, attend college, and have fewer teenage pregnancies (Campbell, Ramey, Pungello, Sparling, & Miller-Johnson, 2002; Belfield, Nores, Barnett, & Schweinhart, 2006). Research has shown that children who participate in early education programs with a rigorous curriculum have better cognitive and social outcomes years later (Reynolds, Temple, Robertson, & Mann, 2001; Campbell et al., 2002; Abbott-Shim et al., 2003; Hauser-Cram, 2005; Belfield, 2006). The best school readiness programs are those that provide children with a curriculum which enriches their language, is developmentally appropriate, and gives attention to individual needs (Smith, 2003).

In Nova Scotia, the Halifax Regional School Board (HRSB) funds a pre-primary program known as “4 Plus” (Friendly, Beach, & Turiano, 2006). The “4 Plus” program is designed to

target children who are at risk for failing in school. As of 2006, there were seven such programs within the HRSB. The program follows the Grade Primary curriculum, which is presented at a developmentally appropriate level. However, the effectiveness of the program has not been studied (Nova Scotia Government, 2005). Nova Scotia also offers the Aboriginal Head Start Program in conjunction with Health Canada (Health Canada, 2005). This program prepares young First Nations children for school by addressing their emotional, social, health, nutritional, and psychological needs.

In 2005, the Nova Scotia government announced that it would establish a two-year pre-primary pilot program (Nova Scotia Department of Education, 2005). The program ran in 19 schools across the province from 2005 to 2008. The full-day program focused on developing social skills, and acquiring foundation skills in the areas of reading, writing, and mathematics. This pre-primary program was the first of its kind in Atlantic Canada. However, in 2008, the Nova Scotia government cancelled the program due to funding (CBC News, 2008). At the time, the province had to choose between the pre-primary program and extending the Primary cutoff date. The choice to extend the cutoff date resulted in 2,500 new Primary students, costing the province 7.5 million dollars. However, extending the pre-primary program would have cost 32 million dollars. With the cancellation of the program, the Nova Scotia government encouraged pre-schools to use the pilot program's curriculum.

Besides these programs, children can also attend child development centers (Friendly, Beach, & Turiano, 2003). Child development centers were established in order to provide at-risk children with a pre-school experience. Child development centers are pre-schools licensed in Nova Scotia under the Day Care Act. In order to be considered a child development center and receive provincial funding, the staff to child ratio must be 1:12, and at least half of the families attending the pre-school must qualify for child care assistance. According to the Childcare

Resource and Research Unit, there are 31 part-day pre-school programs that fall under this classification.

Until recently, it was unknown which developmental areas Nova Scotian students were the least prepared in when entering school (Understanding the Early Years Halifax West & Area, 2009). In conjunction with Human Resources and Skills Development Canada, local researchers gathered information on children's readiness at school entry. They found that 34.5 % of Primary students within the Halifax West and area were rated as "not on track" for language and cognitive development. Of those students, 24.8% were classified as "at-risk" (i.e., children who scored in the 10th to 25th percentile on measurements of cognitive and language abilities) and 9.6 % were classified as "vulnerable" (i.e., children who scored in the lowest 10th percentile on measures of cognitive and language abilities). Within particular communities, it was found that up to 70% of children were "not on track" in terms of their cognitive and language abilities. More than one third of these children were rated as "vulnerable." In "pockets of concern" neighbourhoods, including Spryfield, Herring Cove, and parts of Fairview, as many as half of all children entering Grade Primary were at a disadvantage. From this data, it appears that many of our young children are beginning school without the skills required for a strong academic career.

Overall, research has indicated that children are best prepared for school when they receive early childhood education that contains a rigorous curriculum focused on letter recognition, letter-sound correspondence, phonological awareness, reading, writing, basic mathematical concepts, and metacognitive aspects of literacy (Rayner et al., 2001; Campbell et al., 2002; Abbott-Shim et al., 2003; Conner & Morrison, 2004; Hauser-Cram, 2005; Belfield, 2006). Furthermore, research indicates that a child's environment substantially influences their school readiness and cognitive abilities (Patrick, 2000; Oliver et al., 2005; Lemelin et al., 2007). Therefore, when we think about children entering Grade Primary, we need to be aware that they

are entering with differing experiences, environmental influences, and early educational experiences. It is important to be cognoscente of these differences as academic, language, social, and behavioural variations among young-for-grade and old-for-grade students are explored.

Cognitive Development

Bigelow (1934) was one of the first researchers to suggest that children should enter school at an older age. Specifically, Bigelow argued that children should begin school no younger than six years of age. Bigelow observed that children were failing academically because they were being admitted into schools too early. It was found that children who succeed in school were those who were at least six years of age. This finding demonstrated that the cognitive skills required for success in school developed with age. As a result, in the best interest of families and schools, it was believed that enrollment of children in schools should be withheld until they reached an age where their cognitive abilities ensured academic success.

From this early belief, the question then arose to as the type of cognitive abilities that need to develop with age in order to ensure school success. Research indicates that cognitive abilities, such as verbal reasoning, short-term memory, working memory, and executive functioning, become well developed with age (Kinard & Reinherz, 1986; Bull & Scerif, 2001; Alloway, Gathercole, Adams, Willis, Eaglen, & Lamont, 2005; Blair & Razza 2007; Bull, Espy & Wiebe, 2008). Working memory (i.e., the ability to process and store information over short time periods) has been found to play a crucial role in children's learning during the first years of formal education (Alloway et al., 2005). Children who demonstrate greater digit span and executive functioning skills (e.g., self-regulation and inhibitory control) in Kindergarten have greater success in mathematics and reading throughout the academic year and in subsequent grades (Blair & Raza, 2007; Bull et al., 2008).

Furthermore, children with a high cognitive profile (i.e., those who score above average

on cognitive ability measures) are rated higher on measures of school readiness and perform significantly better on tests of academic achievement compared to other child profiles (Konold & Pianta, 2005). In their study, Konold and Pianta created six profiles of normally developing children in order to predict school readiness and academic performance. Children with a high cognitive profile performed significantly better overall on these measures compared to the other five profiles.

Overall, research has demonstrated that there are significant differences between cognitive abilities of younger and older Kindergarten children, which can impact their academic success in the future (Kinard & Reinherz, 1986; Bull et al., 2008). In addition, children who have a high cognitive profile outperform their peers who do not show this profile. Given that research has shown that children are best prepared to attend school when they receive a rigorous pre-primary curriculum, suggests that it would be beneficial for young children to receive pre-primary education that stimulates their cognitive growth.

Language Development

Normative developmental research has demonstrated that children experience a vocabulary spurt from 18 to 21 months of age (Siegler & Alibali, 2005). During this rapid language growth period, a child's vocabulary knowledge almost doubles in size (Fisher, 1932). Children's vocabulary knowledge continues to increase and by the time they are six-years-old, they understand at least 10,000 words and have acquired speech patterns used by adults. Research has shown that children who are six-years-old when they enter school score significantly better on language tests compared to five-year-olds within the same classroom (Davis, Trimble, & Vincent, 1980). In Grades Four and Eight, the language differences between these two groups remain. This finding suggests that children are better able to meet the language requirements of the classroom when they are six years of age.

Neuman (2005) found that children who were the best prepared for reading and writing in Kindergarten had strong oral language and vocabulary development, phonological and phonemic development, and knowledge of the alphabet. Phonological awareness and letter-sound understanding are especially important since they predict reading readiness and future reading outcomes (Schatschneider, Fletcher, Francis, Carlson, & Foorman, 2004). Research has demonstrated that letter-sound understanding, rather than phonological awareness, is associated with age (McNamara, Scissons, & Simonot, 2004). This finding suggests that reading readiness is acquired through experience with letters and sounds. Therefore, a child who is ready for school demonstrates knowledge of different letters and their corresponding sounds.

Similar to phonological awareness and letter-sound understanding, receptive and expressive language abilities are predictive of academic outcomes (Agostin & Bain, 1997; Hohm, Jennen-Steinmetz, Schmidt, & Laucht, 2007; Mashburn, Justice, Downer & Pianta, 2009). Children who have better developed receptive and expressive language skills show higher academic performance in later grades. Hohm et al. found that infants with well-developed expressive and receptive language abilities demonstrated significantly greater school success in later years compared to children with less developed receptive and expressive language abilities. This finding demonstrates that early language abilities significantly impact future academic success.

Research has shown that skills such as, vocabulary development, phonological and phonemic development must be present in order to ensure a child's school readiness (McNamara et al., 2004; Neuman, 2005). However, Mashburn, et al. (2009) found that within a class, younger students' receptive and expressive language abilities grew as a result of their interaction with older students who had more developed expressive and receptive language abilities. This suggests that entering children into school at a younger age can benefit their language

development. Research has also shown that age is predictive of expressive and receptive language skills. Therefore, we can infer that children who are old-for-grade would have better developed receptive and expressive language skills (Griffin, 1997). Thus, here is Nova Scotia, where there is a large age range, younger children would benefit from the more developed language skills of their older classmates.

Overall, research has shown that language is an important indicator of school readiness and future academic outcomes (Agostin & Bain, 1997; Schatschneider et al., 2004; McNamara et al., 2004; Neuman, 2005; Hohm et al., 2007; Masburn et al., 2009). Furthermore, children who are older or have greater language skills tend to perform better academically than those who are younger or have weaker language skills. As a result, language is a factor which requires further consideration when discussing school readiness and age of school entrance.

Behaviour

Research on behaviour differences between old-for-grade and young-for-grade students has focused on two main areas: (1) how behaviour influences children's academic performance and (2) how age of entry into school affects children's current and future behaviours. In the first area of focus, it has been found that certain behaviour clusters influence academic scores throughout early elementary school years (Alexander, Entwisle, & Dauber, 1993). Alexander and his colleagues found that children who obtained low scores on interest-participation and attention span-restlessness scales also achieved lower academic scores in Grades One, Two, and Four. Furthermore, children who are able to sit quietly and follow directions independently tended to have significantly higher academic scores compared to children who do not possess these skills (Griffin, 1997). These results suggest that children who begin school with behaviours deemed appropriate for the classroom may be better able to succeed academically.

The second area of focus has found conflicting results. On one hand, researchers have found that the age at which a child begins school does not influence his or her behaviour in later grades (Bikel, Zigmond, & Strayhorn, 1991). Conversely, other researchers have demonstrated that the age of entry into school significantly affects future behaviour (Byrd, Weitzman, & Doniger, 1996; Byrd, Weitzman, & Auinger, 1997; Lincove & Painter, 2006). Byrd and colleagues (1996) found that youth who were old-for-grade were more likely to participate in drug-related behaviours. In addition, these youth were more likely to report that they smoked regularly, drank alcoholic beverages, drove with someone who had been drinking, used alcohol or other drugs before last sexual intercourse, used cocaine in the past month, and used injected or other illicit drugs. In a follow up study, Byrd and his colleagues (1997) found that youth who were old-for-grade, and had not been retained, were more likely to exhibit behaviour problems compared to youth who were not old-for-grade. Furthermore, youth who are old-for-grade are more likely to be arrested in high school compared to young-for-grade students (Lincove & Painter, 2006).

These results suggest that old-for-grade, rather than young-for-grade students, demonstrate significantly higher amounts of behaviour problems. Furthermore, these differences do not tend to be seen until late adolescence. As a result, these findings may not actual conflict. It is possible that behavioural differences between old-for-grade and young-for grade students do not emerge until adolescence. If this is the case, then it would explain why researchers such as Bikel and colleagues (1991) found no behaviour differences in early elementary.

In sum, the current literature suggests two main ideas: (1) children who succeed in school possess the appropriate classroom behaviours (Alexander et al., 1993; Griffin, 1997) and (2) delaying age of school entry may contribute to adverse behaviours in adolescence (Byrd et al., 1996; Byrd et al., 1997; Lincove & Painter, 2006).

Social and Emotional

A child who is socially and emotionally healthy and ready to begin school is able to make friends, get along well with his or her peers, and can communicate with his or her teachers (Peth-Pierce, 2000). Children who are socially and emotionally ready for school usually have improved school outcomes and have greater academic success in subsequent years. Children with poor social skills are not as successful in school, as they are pre-occupied and unable to give the appropriate amount of attention required for learning. Many teachers find that children entering into Kindergarten have difficulties with social skills or are immature (Rimm-Kaufman, Pianta, & Cox, 2000). Therefore, maturity, social skills, confidence, and emotional well-being is an important skill set for children to have prior to school entry (Ayres, 1992).

These aforementioned social and emotional abilities are important for entrance into school since these abilities contribute to a child's level of adjustment to the school environment (Patrick, Suk Yoon, & Murphy, 1995). Zill and West (2001) found that compared to younger students, teachers described the older children in their classroom (those who were six-years-old when entering Kindergarten) as more likely to take part in cooperative behaviours and less likely to be argumentative. Older Kindergarteners also tended to take leadership roles more often than their younger peers. This trend continued into high school, with old-for-grade students holding more leadership positions than young-for-grade students (Dhuey & Lipscomb, 2006). It has been argued that in later years, young-for-grade students do not take on these more social roles because they have developed poor self-esteem, resulting from poor academic performance (Thompson, Barnsley, & Dyck, 1999). Thompson, Barnsley, and Battle (2004) found a significant association between entry age and self-esteem. Children who entered school at an older age were found to have higher self-esteem compared to those who entered at a younger age. Children with low self-esteem ran the risk of developing depression and partaking in self-

harming activities. Thompson and his colleagues (1999) found that significantly more young-for-grade individuals committed suicide than old-for-grade individuals between 1979 and 1992.

If one examines the relationship between academics and social abilities, children with poor social and emotional skills are found to experience less academic success (Agostin & Bain, 1997; McClelland, Morrison, & Holmes, 2000). These children's social and emotional capabilities contribute to their poor academic performance, subsequently leading to poor self-esteem since they are not at the same academic level compared to their older classmates. This finding demonstrates that social and emotional abilities can have a domino effect on various aspects of a child's functioning.

Not all researchers agree that these social and emotional differences between children exist. When examining the literature, inconsistent findings have been found pertaining to social and emotional differences, and age of entry into school. Many researchers have found no relations between age of entry and school adjustment, use of guidance services, social and emotional functioning, and peer social ratings (Kinard & Reinherz, 1980; Breznitz & Teltsch, 1989; Spitzer, Cupp, & Parke, 1995; Stipek, & Byler, 2001; The National Institute of Child Health and Human Development (NCHID), 2007). Consequently, one is unable to conclude with certainty that age of entry into school is or is not associated with emotional and social abilities. However, the qualities of children's social and emotional functioning are both important considerations to address when discussing school readiness.

Academic

In 1934, Bigelow suggested that children should be six years of age before entering school in order to guarantee academic success. Since this time, much research has focused on the academic differences between students who begin school early and students who enter school at an older age. Within the literature, there are three main findings: (1) there are persistent

academic differences between these two groups (Baer, 1958; Beattie, 1970; Datar, 2004; Bedard & Dhuey, 2006; McEwan & Shapiro, 2008), (2) any differences that exist even out over time (Davis, Trimble, & Vincent, 1980; Kinard, & Reinherz, 1986; Morrison, Smith, & Dow-Ehrensberger, 1995; Stipek & Byler, 2001; Oshima & Domaleski, 2006; NCHID, 2007), and (3) young-for-grade students demonstrate better school performance compared to old-for-grade students in later grades (Lincove & Painter, 2006; Martin, 2009).

With regard to the first main finding, that persistent academic differences exist, researchers have found that old-for-grade students perform significantly better on various academic tests compared to young-for-grade students (Baer, 1958; Beattie, 1970; Datar, 2004; Bedard & Dhuey, 2006; McEwan & Shapiro, 2008). Beattie conducted a meta-analysis of all studies examining academic differences up until 1969. Across these studies, Beattie found that children who entered school at a younger age had significantly more academic problems compared to students who began school at a later point in time. Similarly, it has been demonstrated that children who are delayed entry into Kindergarten have significantly higher reading and mathematics scores in Grade One (Datar, 2004). The significantly higher scores demonstrated by these children are also found in late elementary and junior high school (Bedard & Dhuey, 2006; McEwan & Shapiro, 2008). Specifically, young-for-grade students score between two and twelve percentiles lower on mathematics and science measures compared to old-for-grade students in Grades Four and Eight. Furthermore, old-for-grade students scored three-tenths to four tenths of a standard deviation higher than young-for-grade students in Grades Four and Eight on measures of reading, mathematics, and science.

From this research, it appears that children who start school at a later age tend to perform better academically. As found by Bedard and Dhuey (2006) and McEwan and Shapiro (2008), older students tend to maintain this academic advantage into their late elementary and junior high

years. However, as mentioned previously, conflicting findings have been demonstrated within the literature. Researchers, who find that there are non-persistent differences, typically find that these differences even out by late elementary or junior high school (Davis et al., 1980; Kinard, & Reinherz, 1986; Morrison et al., 1995; Stipek, & Byler, 2001; Oshima & Domaleski, 2006; NCHID, 2007). When studying these differences, research is generally conducted using one of three methods. The first method involves comparing the outcomes of children who have entered school when they were eligible to children who entered school a year after they were eligible (Stipek, 2002). The second method involves comparing children within the same grade with different birthdays. The third method involves comparing children of the same age, but in different grades and/or children who in the same grade, but of different ages (usually a year apart). Using these design methods, researchers have been able to assess differences due to age and schooling.

Research has found an effect of schooling on students' level of academic achievement. That is, students in higher grades perform significantly better academically compared to students in lower grades and of the same age (Morrison et al, 1995; Stipek & Byler, 2001). Research has also demonstrated the effects of age on school performance. Specifically, within the classroom, older students have been found to perform significantly better academically compared to their younger peers (Stipek & Byler, 2001; NCHID, 2007; Oshima & Domaleski, 2006). In particular, among students in Kindergarten, NCHID found academic differences between young-for-grade and old-for-grade students. The researchers also found that some of these significant differences remained in Grade Three. However, many of these academic outcomes were no longer significantly different at this time. Furthermore, Oshima and Domaleski (2006) found that old-for-grade students performed significantly better in mathematics and reading subjects until Grade Five. However, in Grades Six, Seven, and Eight these differences disappeared.

It is hypothesized that this “evening out” occurs because of the spark in children’s cognitive development due to teacher instruction (Morrison et al., 1995). Morrison and colleagues found that children who made the cutoff date for school developed better cognitively compared to children who did not meet the cutoff date. This suggests that education and instruction both stimulate a child’s cognitive development. To further investigate this notion, Morrison, Griffith, and Alberts (1997) examined if younger children were making as much, if not more, progress compared to older peers after their cognitive growth was sparked by formal schooling. Specifically, Morrison and colleagues examined the growth of reading and mathematics development among young first-graders, old first-graders, and old-kindergarteners. The researchers found that old first-graders performed better on measures of mathematics and reading achievement compared to young first-graders. However, young first-graders outperformed old kindergarteners on these measures. Finally, young first-graders’ progress surpassed the progress of the old first-graders. Specifically, young first-graders achieved lower scores on these measures compared to old first-graders. However, in terms of grade equivalency, young first-graders had made a years’ worth of progress, whereas old first-graders had not.

Morrison and colleagues (1997) suggest that if young children are not ready to benefit from formal learning they should show the same progress as children who miss the cutoff date and are placed in Kindergarten. However, this suggestion was not supported by their study and in subsequent studies (Stipek & Byler, 2001). In spite of initial differences between these groups of children, Stipek and Byler suggest that it may be beneficial for children to begin school at an early age since they benefit from formal instruction and due to the fact that these differences “even out” over time. Recent research indicates that young-for-grade students outperform old-for-grade students in high school (Lincove & Painter, 2006; Martin, 2009). In addition, Lincove and Painter found that children who started school at a younger age demonstrated better

academic performance compared to older classmates in Grades Eight and Ten. Similarly, Martin found that old-for-grade students rated significantly lower on measures of positive intentions and homework completion compared to young-for-grade students. Furthermore, young-for-grade students scored higher on measures of positive intentions, attendance, homework completion, and school performance. These findings suggest that there is little to no long-term academic advantage in delaying age of school entrance.

Overall, the literature has demonstrated inconsistent results with regards to differences among young-for-grade and old-for-grade students on measures of academic performance. However, a consistent pattern emerges from these conflicting findings. That is, academic differences exist between young-for-grade and old-for-grade students. Specifically, these differences can be attributed to one of three possible findings: (1) old-for-grade students consistently perform better than young-for-grade students, (2) old-for-grade students initially perform better than young-for-grade students, but these differences even out, or (3) young-for-grade students outperform older classmates in subsequent years.

Teachers' Perceptions

When examining cognitive, social-emotional, language, and academic differences between young-for-grade and old-for-grade students, it is important to consider teacher's perceptions of these differences. Similar to literature on academic differences, inconsistent findings have been demonstrated among teacher's perceptions of school performance between these two groups (Kinard & Reinherz, 1986; NCHID, 2007). Kinard and Reinherz found that teachers perceived no differences between the two groups in terms of school performance. However, NCHID found that teachers rated old-for-grade students higher on measures assessing students' abilities within mathematics and literacy compared to young-for-grade students. Furthermore, the NCHID study found that teachers perceived old-for-grade students to have

better developed language skills compared to young-for-grade students.

Likewise, another study (Rimm-Kaufman et al., 2000) found that when teachers were asked to indicate the types of problems they perceived to be due to their students' transition into school, they identified that half or more of their class experienced difficulty in the following areas: following directions, academic skills, independent work, group work, social skills, maturity, and communication/language skills. Furthermore, when teachers were asked about their opinion on what should be done with children rated as immature, Ayres (1992) found that teachers perceived that these children should be given more time in Kindergarten before entering Grade One. Teachers felt that this extra time would allow the child to mature and gain confidence, skills which are essential for school success.

In Australia, in the late 1980s, there was a policy change regarding the age of school entry, similar to the recent policy change in Nova Scotia (North & Davies, 1989). After this policy change, North and Davies examined teachers' perceptions of this policy change and its impact on them. The researchers found that 91% of teachers felt that the policy change was in the best interest of the child and 89% felt that the change was also in the best interest of teachers. Many teachers felt the change was in the child's interest since it was socially and emotionally advantageous for the child. When asked about their general impression of the policy change, 6% were opposed, 52% had mixed feelings, and 30% were in agreement. In regards to teachers' perceptions regarding age of school entry, 59% were concerned that four years, six months was too young for children to enter school. However, 2% felt that younger children benefited from early school attendance.

Teachers also expressed concern that they may not be able to meet the needs and abilities of the varying ages within their classroom (North and Davies, 1989). In addition, teachers expressed concern about requiring extra resources within the classroom. This is not

surprising as research has found that teachers struggle with implementing effective practices due to a lack of resources (DeSimone & Parmar, 2006; Sindelar, Shearer, Yendol-Hoppey, & Liebert, 2006; Ferretti & Eisenman, 2010). When teachers were asked about what changes they had to make in order to cater to the needs of the younger children, 28% said they made no changes, 35% said they made general changes (e.g., lowering their own expectations, slowing the pace of lessons, and grouping children differently), and 38% said they followed the recommended curriculum change, which involved increased amounts of play time. Teachers were also asked how well they were able to cater to the needs of the children in their class. Sixty-seven percent reported quite well, 22% reported very well, and 11% reported that they were unable to cater to the needs of the children.

Overall, teachers were in support of the policy change during this time in Australia (North and Davies, 1989). However, teachers were concerned that the age of four years, six months was too young to begin school. Many teachers also reported concerns regarding their ability to meet the needs of the children within their classroom. These concerns, which were raised in Australia during the time of their policy change, are important and legitimate questions that need to be addressed in Nova Scotia, due to the recent entry age policy change. It is important to understand how teachers perceive the functioning of their class, their ability to meet the needs of their students, and how their students are performing academically, cognitively, and socially.

Nova Scotia Primary Curriculum

In Nova Scotia, the first year of school (i.e., Primary) guides students through the transition from home to school and promotes the students' lifelong learning (Nova Scotia Department of Education, 1999). The curriculum during this first year is designed to foster students' art, culture, social-emotional, physical, and intellectual development. In addition, the

curriculum is also designed in a way for teachers to recognize the range of student experiences within the class, design activities so that they meet the varying needs of the students, and to challenge their students' learning.

Within the curriculum there are several outcomes dependent on the areas discussed (i.e., cognitive, social-emotional, behaviour, and language development). With respect to cognitive development, the curriculum has identified that most Grade Primary children learn from direct experiences, perceive their own points of view and recognize that others have differing points of view, begin to use simple reasoning, understand time, and recognize differences and properties between objects (Nova Scotia Department of Education, 1999). In order to further develop these skills, program planning has focused on "hands-on" activities, offering a wide range of activities and materials, engaging students in opportunities to build on previous experiences, and encouraging students to experiment, explore, and investigate using all their senses.

Program planning focuses on increasing the cognitive development of children at the same relative level of ability. However, based on the literature drawn from cognitive development, one can expect that there will be differences within the current Primary classroom here in Nova Scotia (Kinard & Reinherz, 1986; Bull & Scerif, 2001; Alloway et al., 2005; Blair, & Razza 2007; Bull et al., 2008). Thus, the effectiveness of Nova Scotia's current Primary program on developing the cognitive skills among this diverse group remains to be examined.

In regard to their social and emotional development, the curriculum recognizes that most Primary students are interested in peers, show preference for same-gender playmates, become more self-controlled, accept responsibility for their actions, are more willing to share and take turns, desire to learn about their culture, and value their classmates and their wellbeing (Nova Scotia Department of Education, 1999). Students' social and emotional development is being met by providing opportunities for students to choose between group and individual activities,

commenting on their behaviour as they learn to interact in pairs, small groups, and large groups. Furthermore, students' social and emotional growth is supported by making the multicultural experiences of students available. Furthermore, there are specific curriculum outcomes which rely on the student's ability to use appropriate social skills¹ (Nova Scotia Department of Education, 2004). For example, in the area of Language Arts it is proposed that "students will be able to interact with sensitivity and respect, considering the situation, audience, and purpose." (Nova Scotia Department of Education, 2004, p.1). Similarly, in Science, students will "respond to the ideas and actions of others and acknowledge their ideas and contributions." (Nova Scotia Department of Education, 2004, p.15).

Within the curriculum, a child's socio-emotional development plays an important role on their ability to meet several of the Primary outcomes. Many researchers have found significant differences between young-for-grade and old-for-grade students with respect to their social and emotional abilities (Patrick et al., 1995; Agostin & Bain, 1997; McClelland et al., 2000; Zill & West, 2001; Thompson et al., 2004; Dhuey & Lipscomb, 2006). Other researchers have found no differences between these two groups (Kinard & Reinherz, 1980; Breznitz & Teltsch, 1989; Spitzer, Cupp, & Parke, 1995; Stipek, & Byler, 2001; NICHD, 2007). Thus, in the current Primary class, consisting of students between four years, nine months to six years of age, differing social and emotional abilities could exist. The functioning of this group of children in relation to the curriculum outcomes focused on social abilities remains to be investigated.

Furthermore, in regards to language development, the curriculum recognizes that most students in Primary learn words at a rapid rate (which increases their receptive vocabulary), engage in conversations and ask questions, are interested in books, enjoy listening to stories and

¹ The Nova Scotia Primary curriculum was not updated before the entrance age policy went into effect. The most recent curriculum documents for Grade Primary were updated in April of 2004.

music, recognize symbols in the environment, and express their ideas through pictures, manipulative material, and writing (Nova Scotia Department of Education, 1999). Program planning focuses on providing students with opportunities to talk in pairs or small groups, expand their conversations by asking questions, complete activities using audio, films, and artwork, and engage students in conversations about their own learning. Within the curriculum, there are also specific outcomes that rely on the student's ability to use language (Nova Scotia Department of Education, 2004). For example, in Language Arts, the curriculum states that "students will speak and listen to explore, clarify, extend, and reflect upon their feelings and experiences. Students will be able to communicate information and ideas effectively and clearly, and respond personally and critically" (Nova Scotia Department of Education, 2004, p.1). Furthermore, in Science, it is proposed that students will "develop vocabulary and use language to bring meaning to what is seen, felt, smelled, heard, tasted, and thought," "...detect consistency and pattern in objects and events and use language to describe these patterns," "...ask questions that lead to exploration and investigation," and "...communicate questions, ideas, and intentions while conducting their explorations" (Nova Scotia Department of Education, 2004, p.14).

Similar to socio-emotional development, language ability is also important in order for students to meet Primary curriculum outcomes. Within the current Grade Primary class, one would expect differences among the language abilities of students. Research has shown that age is predictive of children's level of receptive and expressive vocabulary (Mashburn et al., 2009). Thus, older children in the class are expected to have better developed receptive and expressive language skills compared to their younger peers. Furthermore, research has shown that older children who have greater language skills tend to perform better academically compared to children who are younger or have weaker language skills (Agostin & Bain, 1997; Schatschneider et al., 2004; McNamara et al., 2004; Neuman, 2005; Hohm et al., 2007; Masburn et al., 2009).

Thus, one would expect younger students to have more difficulty in meeting the language-based curriculum outcomes within the class compared to older students.

Overall, the current Nova Scotia Primary curriculum is designed to develop and promote student's skills (Nova Scotia Department of Education, 1999). However, it is also designed on the basis that students have some basic skills in certain areas upon entrance. Based on the language, academic, behaviour, and social-emotional literature, within the current Primary class, there is a possibility that differences exist between young and old students with respect to these abilities. Therefore, some students may have difficulty meeting the curriculum outcomes that are reliant on advanced specific abilities. As a result, it would be of interest to examine how these students are coping in the Primary classroom.

Chapter 3: Rational and Research Question

Rationale

In Nova Scotia, in 2008, the cutoff date for entry into Grade Primary changed from October 1st to December 31st (Nova Scotia Government, 2008). Prior to the policy change, children had to turn five- years-old on or before October 1st in order to attend Primary for the given year. If the child's birthday fell beyond October 1st, they were unable to attend school until the following September. During this time, the age range within a Primary class in September was four years, eleven months to five years, eleven months (a range of one year).

With the recent policy change, a child must turn five years-old on or before December 31st in order to attend Grade Primary. Therefore, within the Primary class of September 2008 the age range can be anywhere from four years, nine months to five years, eleven months (one year, two months). As the oldest students in the class turn six years-old, the youngest students are only four years, ten months. This scenario is unique for those who began Primary in September 2008, due to the fact that the class includes students who missed the October 1st cutoff date in 2007. It is of particular interest to examine the effect of the widening age range on the functioning of this class and its teachers.

Based on an examination of the literature, it can be concluded that cognitive, language, behaviour, social-emotional and academic differences exist between old-for-grade and young-for-grade students (Davis et al., 1980; Kinard & Reinherz, 1986; Byrd et al., 1996; Agostin & Bain, 1997; Byrd et al., 1997; Griffin, 1997; Zill & West, 2001; McNamara et al., 2004; Schatschneider et al., 2004; Thompson et al., 2004; Dhuey & Lipscomb, 2006; Lincove & Painter, 2006; Hohm et al., 2007; Bull et al., 2008). Specifically, research has found persistent academic differences between these two groups (Baer, 1958; Beattie, 1970; Datar, 2004; Bedard

& Dhuey, 2006; McEwan & Shapiro, 2008), that any differences that do exist tend to even out over time (Davis et al., 1980; Kinard, & Reinherz, 1986; Morrison et al., 1995; Stipek, & Byler, 2001; Oshima & Domaleski, 2006; NCHID, 2007), and that young-for-grade students demonstrate better school performance compared to old-for-grade students in later grades (Lincove & Painter, 2006; Martin, 2009).

Within the current Primary curriculum, specific outcomes are reliant on specific abilities, such as language and social skills (Nova Scotia Department of Education, 2004). Given that young-for-grade students tend to be weaker in these areas than old-for-grade students, it was suspected that the younger students in last years' Primary class and this years' Grade One class are performing at a lower level on curriculum outcomes that are reliant on these specific abilities. The question then arises: whether the true problem is the age gap or starting school before the age of six?

Furthermore, the current Primary curriculum was not updated before the implementation of the new entrance age policy (Nova Scotia Department of Education, 2004). Therefore, it is important to examine how the functioning of this diverse age group is perceived by teachers with respect to their curriculum attainment and their socio-emotional, cognitive, and behavioural development. Also, it is of interest to examine how teachers perceive the recent policy change and whether they perceive it has affected their teaching.

The purpose of the current study was to gain an understanding of teachers' perceptions of their students' school readiness relative to the recent policy change on early school entrance. The goal of this study was to examine teachers' perceptions of how students are functioning academically, cognitively, socially, and emotionally within a diverse age cohort. An additional goal of the study was to examine what key topics teachers perceived to be important for an early curriculum

The findings of the study will contribute to the literature by specifically examining teachers' perceptions of school readiness in relation to the recent policy change on early school entrance. The findings of this study are important because of the role they can play with regards to programming, and with curriculum and professional development. Moreover, teachers' perspectives are important as they are the individuals directly implementing these policy changes. Their views are important to understanding how these policies will be implemented and what supports and pragmatic changes may be necessary.

Research Questions

1. What are teachers' perceptions of how the 2008-2009 Grade Primary and 2009-2010 Grade One students are functioning academically, cognitively, socially, and emotionally within a diverse age cohort?
2. What comments do teachers offer about the recent policy change?
3. What are teachers' perceptions of key topics for an early curriculum?

Chapter 4: Method

Participants

Participants consisted of 12 Grade Primary and 10 Grade One teachers in the Annapolis Valley region of Nova Scotia, Canada. All 22 participants were female and ranged in age from 20 to 45 and above. The majority (69.6%) of participants held a Bachelor of Education degree (B.Ed.) and 26.1% held a Master's of Education degree (MEd.). Participants' total number of years teaching ranged from 1 to 20 or more years, with the majority (39.1%) of respondents teaching between 11 and 20 years.

Materials

Teachers' perceptions of the recent policy change were examined by the "Teachers' Perceptions of the Entrance Age Policy Change" questionnaire (see Appendix A). The questionnaire was created by the researcher through consultation with her supervisor and thesis committee. The questionnaire consisted of five sections. The first four sections dealt with demographics, attitudes on policy change, attitudes on young learners, and attitudes on programming. Each section consisted of statements in which participants were asked to rate their level of agreement using a five-point Likert scale. The fifth section on the questionnaire contained open-ended questions. Here, teachers were given the opportunity to express their opinions on what makes a student ready for school, how the policy change has impacted them, any accommodations they have had to make for younger students, and what professional development they have received around the change in entry date. Teachers were also provided with a form to complete if they were interested in receiving a copy of the results.

Procedure

Once ethical approval was obtained from both Mount St. Vincent University and the Annapolis Valley Regional School Board (see Appendix B, letter to superintendent) school principals were contacted by the researcher through e-mail and telephone. Principals were informed of the purpose of the study and were asked if they were interested in having their teachers participate. Once the principal agreed to have his or her teachers participate, the researcher delivered the questionnaires (see Appendix A) to the principal. Thereafter, the principal dispersed the questionnaires, informing teachers that the researcher would return in one week to pick up the completed questionnaires. Along with the questionnaire, participants were provided with a letter which outlined the purpose of the research, provided directions on how to complete the questionnaire, and indicated where to return it once completed (see Appendix B). After participants completed the questionnaire, they returned it either to the principal or school secretary. Completed questionnaires were collected by the researcher approximately a week later. In cases where not all questionnaires were returned, the researcher sent an e-mail as a reminder to those participants and returned five days later. Participants were provided with contact information for the researcher if they wished to receive debriefing information or if they had any questions.

Chapter 5: Results

Teachers were categorized according to the current grade level taught. Participants' responses were collapsed into three categories: agree, neutral, and disagree. If a participant rated their reaction to a statement as a 1 or a 2 their score was placed in the "agree" category. If they rated their reaction a 3, their score was placed in the "neutral" category. If they rated their reaction a 4 or 5, their score was placed in the "disagree" category. Descriptive statistics and Chi-square analyses were conducted using the Statistical Package for the Social Sciences, 17th Edition (SPSS 17.0).

Demographic Information

The two groups (Primary and One) were analyzed to determine if any differences existed among the teachers in each group in relation to their age, education, and total years teaching. With regards to age, the Grade Primary sample contained a greater number (58.3%) of teachers over the age of 45 compared to the Grade One sample (30%) (see *Table 1*).

Table 1. Percent of Respondents in Each Age Category.

Age	Percent of Primary Teachers	Percent of Grade One Teachers
20-25	8.3	0
26-35	8.3	10
36-45	16.7	60
45>	58.3	30

However, the Grade One sample included a greater number (60%) of teachers between the ages of 36-45 compared to the Grade Primary sample (16.7%). When level of education was examined, the Grade Primary sample contained more teachers (33.3%) who had completed a Masters of Education degree compared to the Grade One group (20%) (see *Table 2*).

Table 2. Percent of Respondents in Each Education Category.

Education	Percent of Primary Teachers	Percent of Grade One Teachers
BEd.	66.7	80
MEd.	33.3	20

In regard to total years teaching, 30% of Grade One respondents had been teaching for 1-5 years compared to 16.7% of Grade Primary teachers. Furthermore, the majority (50%) of Grade One participants had been teaching between 11 and 20 years, compared to 33.3% of Grade Primary participants. The majority (41.7%) of Grade Primary teachers had been teaching for an excess of 20 years, compared to only 20% of Grade One teachers (see *Table 3*).

Table 3. Percent of Respondents in Each Years Teaching Category.

Years Teaching	Percent of Primary Teachers	Percent of Grade One Teachers
1-5	16.7	30
6-10	8.3	0
11-20	33.3	50
20>	41.7	20

Research Question 1

Note: Results must be viewed with caution given small sample size.

“What are teacher’s perceptions of how the 2008-2009 Grade Primary and 2009-2010 Grade One students are functioning academically, cognitively, socially, and emotionally within a diverse age cohort?”

Teachers’ perceptions of this group’s academic, cognitive, social, and emotional functioning were examined via the “Programming” section of the participant questionnaire (see Appendix A). Descriptive statistics were calculated in order to identify the percentage of participants who responded with agreed, disagreed, or neutral to each questionnaire statement. These percentages were then used to conduct a Chi-square analysis, aimed to determine if the proportion of participants who agreed, disagreed, or were neutral differed significantly from what would be expected. The data for this analysis was only collected from Grade Primary teachers. Primary teachers were asked to respond to the questions in relation to last years’ (2008-2009) Primary class. Only two participants who currently taught Grade Primary did not complete this section, as they did not teach last years’ Primary class. As such, these participants were excluded from the data analysis for research question one.

Results from Chi-square analyses revealed no significant ($p > 0.05$) differences between participants’ responses and what was expected (see *Table 4*). Participants varied on their responses in regard to the skills of younger students in last years’ Primary class. For example, 60% of respondents perceived that the expressive and receptive language abilities of last years’ class were comparable to other classes they have taught, whereas 30% were neutral and 10% disagreed (see *Figure 1*).

Table 4. Percent of Primary Teachers Who Responded to Statements on Section I of the Questionnaire.

Statement	Percent Agree	Percent Neutral	Percent Disagree	X² Statistic	P
Expressive and receptive language abilities of last years' class were comparable to other classes I have taught.	60	30	10	3.800	0.150
The younger students in my class were able to meet the curriculum outcomes that were reliant on language ability.	20	40	40	0.800	0.670
The younger students in my class were able to meet the curriculum outcomes that were reliant on memory skills.	10	50	40	2.600	0.273
The younger students in my class were able to meet the curriculum outcomes that were reliant on social skills.	20	40	40	0.800	0.670
The dynamics of last years' classroom were different due to the age change, compared to other classes I have taught.	60	20	20	3.200	0.202
Behavioural problems in last years' class were the same compared to previous classes I have taught.	40	20	40	0.800	0.670
Issues related to maturity in last years' class were not any different compared to other classes I have taught.	30	30	40	0.200	0.905

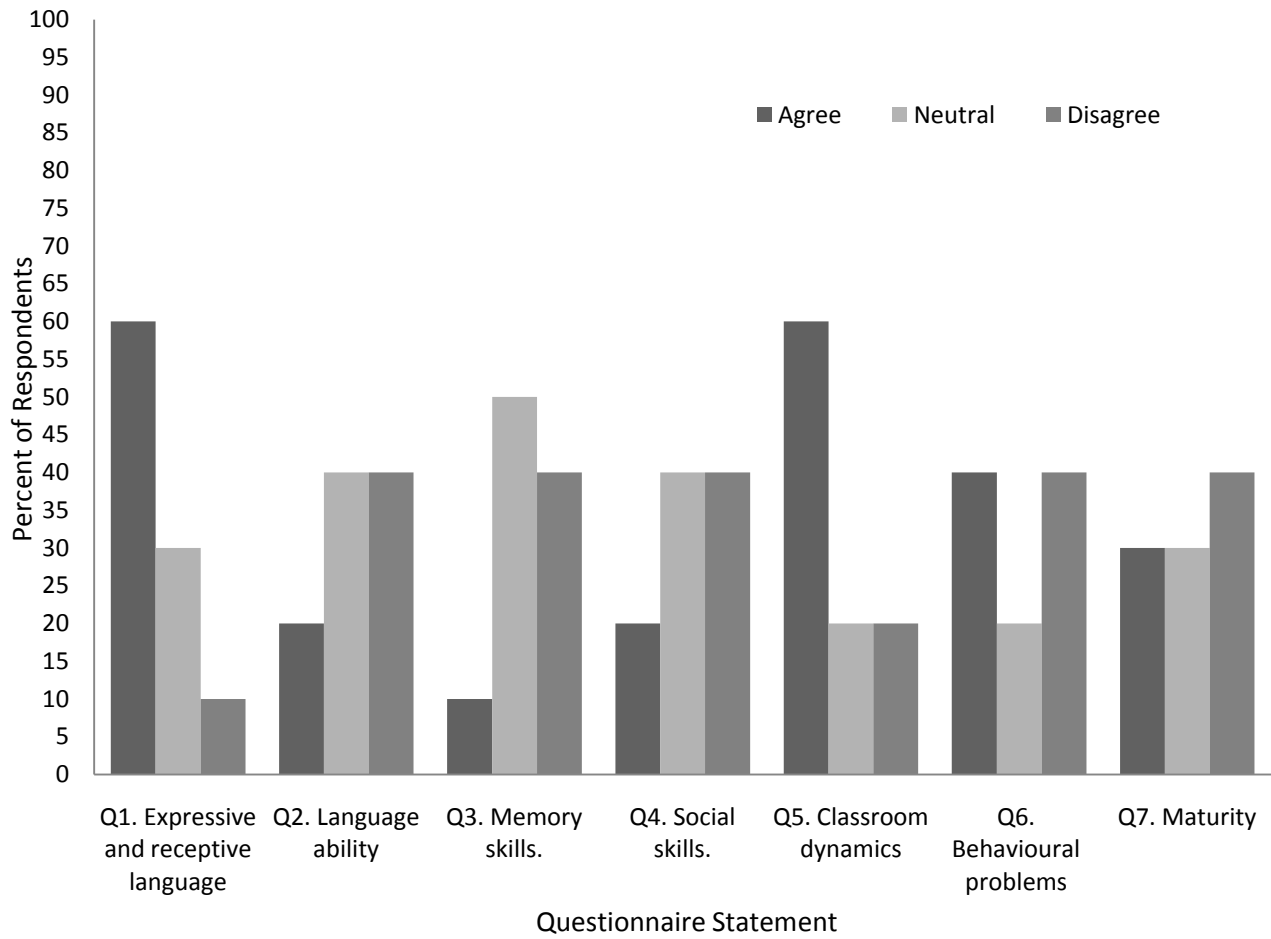


Figure 1. Percent of Primary participants who agreed, disagreed, and were neutral on the Primary Programming portion of the participant questionnaire.

Cross-tabulation analysis revealed that out of the 60% of respondents who agreed with the statement, 50% were over the age of 45 and 50% had obtained a Master's of Education degree. When it came to meeting curriculum outcomes based on language ability, teachers were spread more evenly across the three categories, with 20% agreeing with the statement, 40% indicating that they were neutral, and 40% disagreeing. Furthermore, the majority of participants (50%) were neutral when asked if younger students were able to meet curriculum outcomes based on memory skills. However, 40% of respondents perceived that students were not able to meet curriculum outcomes that were reliant on memory skills. Those who perceived that students were able to meet these outcomes only made up 10 % of the respondents. When queried whether they perceived that younger students met curriculum outcomes relating to social skills, teachers responses were found to be fairly evenly distributed again, with 20 % agreeing, 40 % responding neutral, and 40% disagreeing.

Overall, the majority (60%) of Primary teachers perceived that last years' classroom dynamics were different due to the age change. Results from cross-tabulation analysis revealed that 83.3% of respondents were over the age of 45, 50% had been teaching for over 20 years, and 50% had been teaching Grade Primary between 11 and 20 years. However, teachers were divided on whether they perceived that the behaviour problems in last years' class were similar to previous classes they have taught. Specifically, 40% of respondents perceived behaviour problems to be the same as previous classes they taught, whereas 40% did not perceive behaviour problems to be similar to previous classes. Moreover, 20% of respondents were undecided. Similarly, when asked about issues related to maturity compared to previously taught classes 30% of teachers perceived the issues were the same, 40% perceived the issues were different, and 30% did not demonstrate a strong preference.

Research Question 2

Note: Results must be viewed with caution given small sample size

“What comments do teachers offer about the recent policy change?”

Teacher’s perceptions of the recent policy change were examined through the “Policy Change” portion of the questionnaire (see Appendix A). Descriptive statistics were computed in order to identify the percentage of participant’s who agreed, disagreed, or were neutral to questionnaire statements. These percentages were then used to conduct a Chi-square analysis to determine if the difference in proportion among those who agreed, disagreed, or were neutral differed significantly from what would be expected. The data for this analysis was collected from both Grade Primary and One teachers. The data for each group was examined separately in order to identify any differences in responding.

Results from the questionnaire indicated a variety of different perceptions among Grade Primary and One teachers. For example, 80% of Grade One teachers perceived the cutoff date change to not be in the best interest of students (see *Table 5* and *Figure 2*). Twenty percent (20%), however, perceived that the cutoff was in the students’ best interest. These proportions were significantly different than expected ($X^2 = 10.400$, $p = 0.006$). Alternatively, the majority (66.7%) of Grade Primary teachers were neutral regarding the cutoff change. However, 33.3% perceived that the cutoff change was not in the students’ best interest. Similarly to Grade One teachers, these proportions were significantly different than expected ($X^2 = 8.000$, $p = 0.018$) (see *Table 6* and *Figure 3*).

Table 5. Percentage of Grade One Teachers Who Responded to Each Statement on Section II of the Questionnaire.

Statement	Percent Agree	Percent Neutral	Percent Disagree	X ² statistic	P
The revised cutoff date change to December 31 is in the best interest of children.	20	0	80	10.400	0.006**
The revised date of December 31 is a better cutoff date than October 1.	40	0	60	5.600	0.061
The revised cutoff date had a positive impact on classroom performance.	20	0	80	10.400	0.006**
The revised cutoff date made no difference in the level of student readiness.	0	10	90	14.600	0.001**
All children should attend a school based funded pre-primary program.	70	30	0	7.400	0.025*
Children should not begin formal schooling until age 6.	30	30	40	0.200	0.905
The revised cutoff date will result in increased class sizes.	40	30	30	0.200	0.905
More resources will be needed to meet the needs of the diverse age group entering primary.	100	0	0	20.00	<0.001**
I am ready to meet the needs of all the students in my class	40	20	40	0.800	0.670

* $p < 0.05$. ** $p < 0.01$

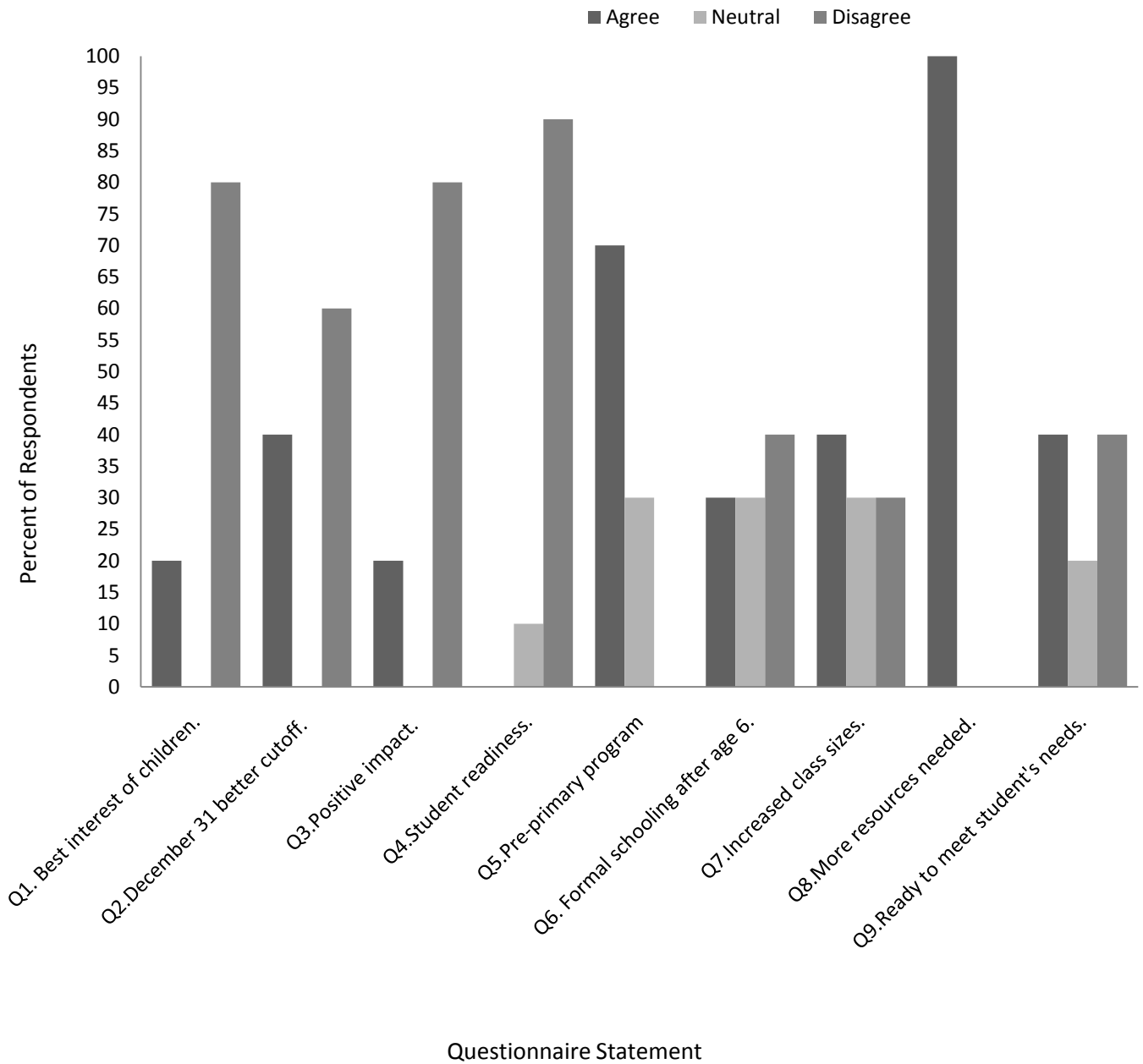


Figure 2. Percent of Grade One teachers who agreed, disagreed, or were neutral with statements on the Policy Change portion of the questionnaire.

Table 6. Percentage of Primary Teachers Who Responded to Each Statement on Section II of the Questionnaire.

Statement	Percent Agree	Percent Neutral	Percent Disagree	X ² statistic	P
The revised cutoff date change to December 31 is in the best interest of children.	0	66.7	33.3	8.000	0.018*
The revised date of December 31 is a better cutoff date than October 1.	16.7	41.7	41.7	1.5000	0.472
The revised cutoff date had a positive impact on classroom performance.	0	50	50	6.000	0.050*
The revised cutoff date made no difference in the level of student readiness.	0	25	75	10.500	0.005*
All children should attend a school based funded pre-primary program.	58.3	41.7	0	6.5000	0.039*
Children should not begin formal schooling until age 6.	16.7	16.7	66.7	6.000	0.050*
The revised cutoff date will result in increased class sizes.	33.3	41.7	25	0.500	0.779
More resources will be needed to meet the needs of the diverse age group entering primary.	83.3	16.7	0	14.000	0.001**
I am ready to meet the needs of all the students in my class regardless of the wide age range.	66.7	25	8.3	6.500	0.039*

* $p < 0.05$. ** $p < 0.01$

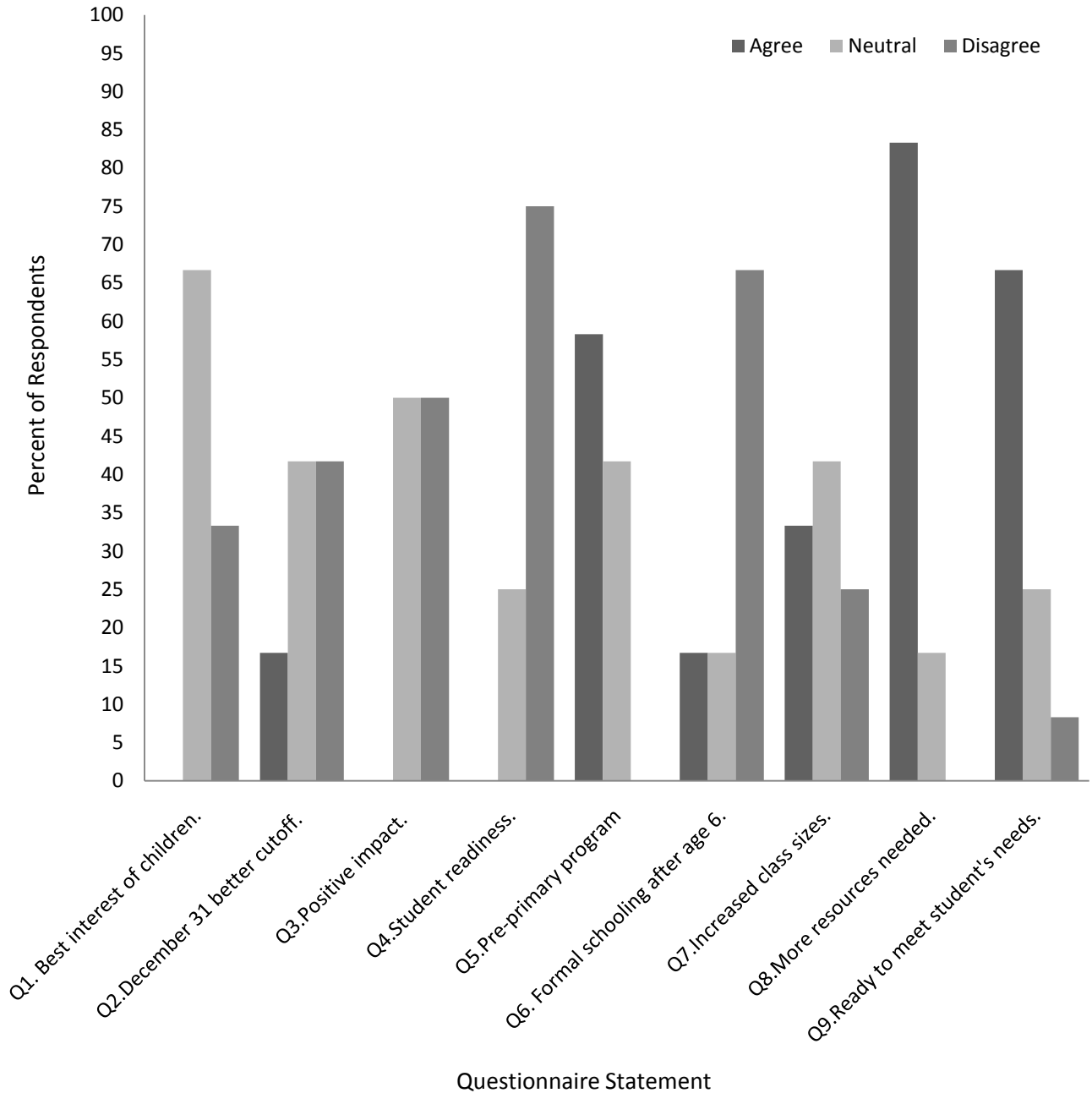


Figure 3. Percent of Primary teachers who agreed, disagreed, or were neutral with statements on the Policy Change portion of the questionnaire.

When asked if the December 31st cutoff date was better than October 1st, the responses of Grade Primary ($X^2(2, N = 12) = 1.500, p = 0.472$) and One ($X^2(2, N = 10) = 5.600, p = 0.061$) teachers were both found to not significantly differ from expectations. Grade Primary teachers' responses were spread among the three categories, with 16.7% agreeing, 41.7% neutral, and 41.7% disagreeing. However, Grade One teachers demonstrated more preference in their responses, with 60% disagreeing and 40% agreeing that the December 31st cutoff date was better than the October 1st date.

When it came to teachers' perception that the revised cutoff date had a positive impact on classroom performance, Grade Primary teachers were divided, with 50% neutral and 50% agreeing. This was significantly different from expected ($X^2(2, N = 12) = 6.000, p = 0.050$). Grade One teachers, however, demonstrated a greater preference, with 80% stating they disagreed with the statement that the cutoff had a positive impact on classroom performance. Similarly, this finding was significantly different from expected values ($X^2(2, N = 10) = 10.400, p = 0.006$). When participants were asked if the revised cutoff made a difference in the level of student readiness, the majority of both Grade Primary (75%) and Grade One (90%) respondents perceived that the cutoff change had made a difference in the level of student readiness. Both Grade Primary and Grade One teachers' responses were significantly different from expected ($X^2(2, N = 12) = 10.500, p = 0.005, X^2(2, N = 10) = 14.600, p = 0.001$).

Additionally, teachers were asked if students should attend a school based funded pre-primary program, with the result that Grade Primary and Grade One teachers were either in agreement or neutral when asked. No respondent disagreed with this statement. Of Grade Primary teachers, 58.3% were in agreement and 41.7% were neutral. Similarly, 70% of Grade One teachers were in agreement and 30% were neutral. Both grade level proportions were significantly different from expected ($X^2(2, N = 12) = 6.500, p = 0.039, X^2(2, N = 10) = 7.400,$

$p = 0.025$). Furthermore, teachers were asked to respond to the statement “students should not begin formal schooling until age six.” The majority (66.7%) of Grade Primary teachers disagreed with this statement, whereas 16.7% agreed and 16.7% were neutral. On the other hand, Grade One teachers were split amongst the three response categories, with 30% agreeing, 30% neutral, and 40% disagreeing. Grade Primary responses were found to be significantly different from expectations ($X^2(2, N = 12) = 6.000, p = 0.050$), whereas Grade One teachers’ responses were not significantly different from what would be expected ($X^2(2, N = 10) = 0.200, p = 0.905$). Moreover, teachers were asked if they agreed, disagreed, or were neutral in response to the statement that the revised cutoff date would result in larger class sizes. Both Grade Primary and Grade One teachers’ responses were evenly distributed among the three response categories. From Chi-square analysis, both groups’ responses were found not to be significantly different from expected ($X^2(2, N = 12) = 0.500, p = 0.779, X^2(2, N = 10) = 0.200, p = 0.905$).

When examining if teachers perceived that more resources would be needed in order to meet the needs of this diverse age group, it was found that 83.3% of Grade Primary participants agreed with the statement and 16.7% were neutral. All (100%) Grade One participants agreed with the statement. Both Grade Primary and Grade One response proportions were significantly different than expected ($X^2(2, N = 12) = 14.000, p = 0.001, X^2(2, N = 10) = 20.000, p < 0.001$). Furthermore, results indicated that 66.7% of Grade Primary teachers were ready to meet the needs of students within this diverse age group. Twenty-five percent (25%) were found to be neutral on this topic, and 8.3% perceived that they were not ready. Conversely, only 40% of Grade One teachers perceived that they were ready to meet the students’ needs. Similarly, 40% did not perceive that they were ready and 20% were neutral.

Research Question 3

Note: Results must be viewed with caution given small sample size.

“What are teachers’ perceptions of key topics for an early curriculum?”

Teachers’ perceptions of key topics to an early curriculum were explored via the “Young Learners” portion of the questionnaire (see Appendix A). Descriptive statistics were calculated in order to identify the percentage of participants’ who agreed, disagreed, or were neutral with the questionnaire statement. These percentages were then used to conduct a Chi-square analysis to determine if the difference in proportions among those who agreed, disagreed, or were neutral differed significantly from what would be expected. The data for this analysis was collected from both Grade Primary and One teachers. The data for each group was examined separately in order to identify any differences in responding. Participants were asked to determine if they agreed, disagreed, or were neutral on the key aspects of early curriculum. The first early curriculum area that teachers were asked about was letter recognition and letter-sound relationships. All Grade Primary respondents agreed that letter recognition and letter-sound relationships are key early curriculum areas (see *Table 7* and *Figure 4*). Conversely, 90% of Grade One teachers agreed that both areas are key aspects of early curriculum, and 10% disagreed (see *Table 8* and *Figure 5*). Both groups’ proportions were significantly different than expected ($X^2(2, N = 12) = 24.000, p < 0.001$, $X^2(2, N = 10) = 14.600, p = 0.001$). In addition, 100% of Grade Primary teachers perceived that phonological awareness was a key component of an early curriculum. Alternatively, 80% of Grade One teachers agreed with this, 10% were neutral, and 10% disagreed. Both groups’ responses were significantly different than expected ($X^2(2, N = 12) = 24.000, p < 0.001$, $X^2(2, N = 10) = 9.800, p = 0.007$).

Table 7. Percentage of Primary Teachers Who Responded to Each Statement on Section III of the Questionnaire.

Statement	Percent Agree	Percent Neutral	Percent Disagree	X ² Statistic	P
Key aspects of early curriculum for beginning learners include:					
a. Letter recognition	100	0	0	24.000	<0.001**
b. Letter-sound relationship	100	0	0	24.000	<0.001**
c. Phonological awareness	100	0	0	24.000	<0.001**
d. Metacognitive aspects of literacy	91.7	8.3	0	18.500	<0.001**
e. Number recognition	100	0	0	24.000	<0.001**
f. Metacognitive aspects of numeracy	91.7	8.3	0	18.500	<0.001**
g. Understanding of story sequence	83.3	16.7	0	14.000	0.001**
h. Contextual background and print awareness	100	0	0	24.000	<0.001**

* $p < 0.05$. ** $p < 0.01$

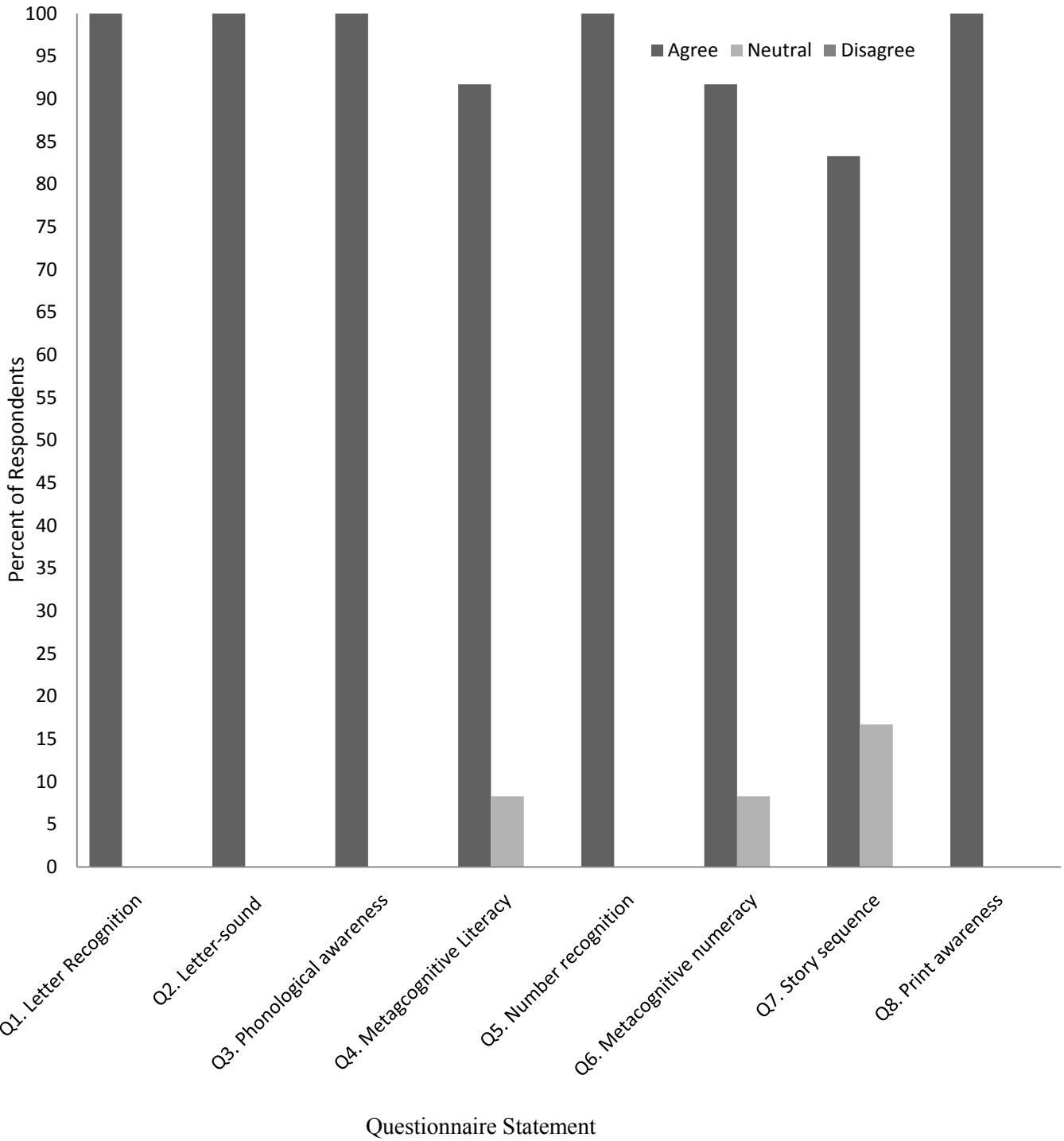


Figure 4. Percent of Primary teachers who agreed, disagreed, or were neutral with statements on the Young Learners portion of the questionnaire.

Table 8. Percentage of Grade One Teachers Who Responded to Each Statement on Section III of the Questionnaire.

Statement	Percent Agree	Percent Neutral	Percent Disagree	X ² Statistic	P
Key aspects of early curriculum for beginning learners include:					
a. Letter recognition	90	0	10	14.600	0.001**
b. Letter-sound relationship	90	0	10	14.600	0.001**
c. Phonological awareness	80	10	10	9.800	0.007**
d. Metacognitive aspects of literacy	60	20	20	3.200	0.202
e. Number recognition	90	0	10	14.600	0.001**
f. Metacognitive aspects of numeracy	70	10	20	6.200	0.045*
g. Understanding of story sequence	80	20	0	10.400	0.006**
h. Contextual background and print awareness	90	10	0	14.600	0.001**

* $p < 0.05$. ** $p < 0.01$.

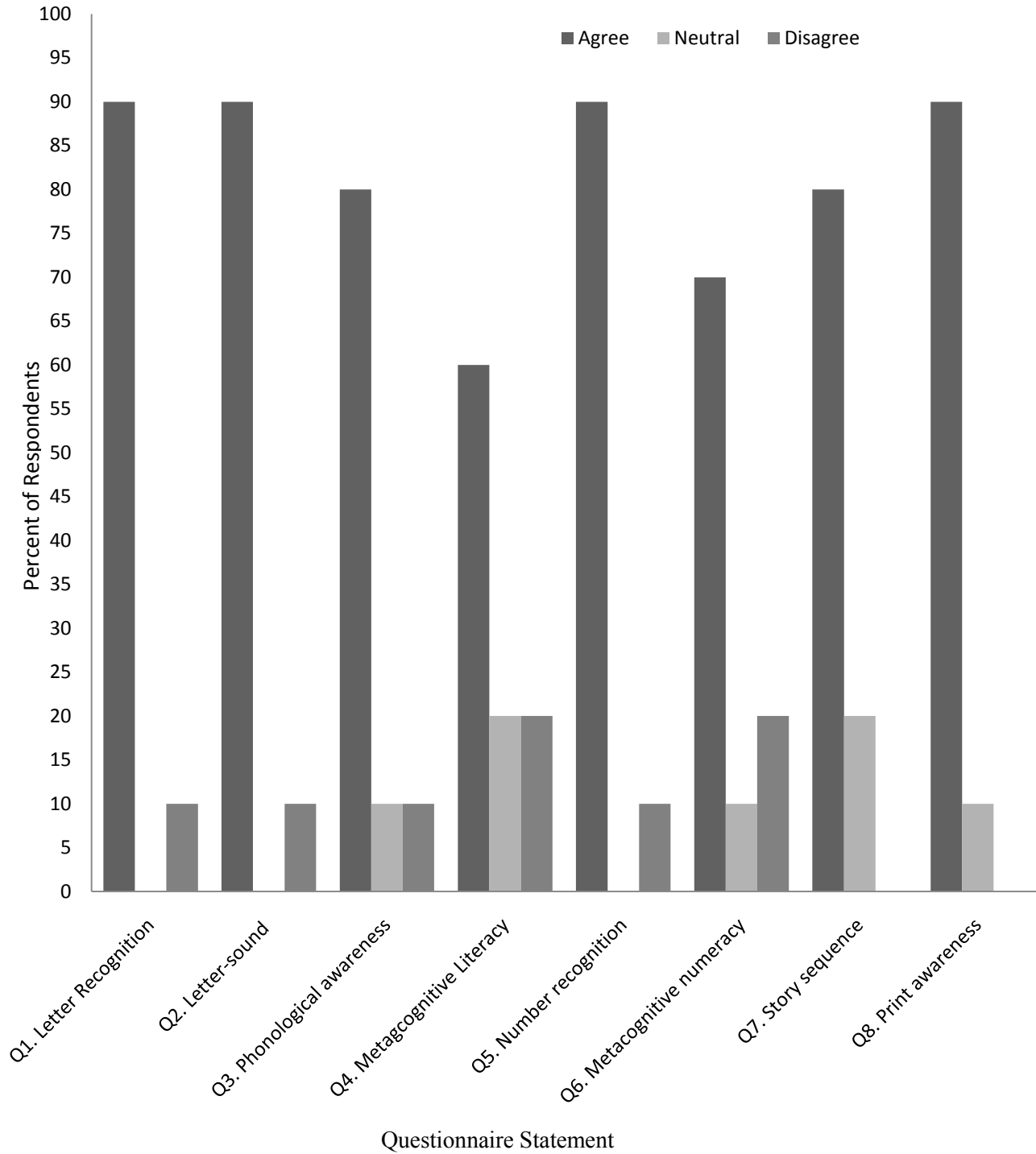


Figure 5. Percent of Grade One teachers who agreed, disagreed, or were neutral with statements on the Young Learners portion of the questionnaire.

When it came to metacognitive aspects of literacy, 91.7% of Grade Primary teachers perceived that this was a key aspect of an early curriculum and 8.3% were neutral. Proportions were significantly different than what would be expected ($X^2(2, N = 12) = 18.500, p < 0.001$). On the other hand, Grade One teachers were more spread out amongst the response categories. In regard to the metacognitive aspects of literacy, 60% agreed that it was a key part of an early curriculum, 20% were neutral, and 20% disagreed. Chi-square analysis revealed that participants' responses were not significantly different from expected ($X^2(2, N = 10) = 3.200, p = 0.202$). However, when it came to metacognitive aspects of numeracy, Grade One teachers demonstrated a stronger preference, with 70% agreeing that it is a key aspect of an early curriculum. Ten percent (10%) were neutral on the issue, and 20% disagreed. Overall, teachers' responses were significantly different from what would be expected ($X^2(2, N = 10) = 6.200, p = 0.045$).

Similar to letter recognition, 100% of Grade Primary teachers agreed that number recognition is a key aspect of an early curriculum. Of the Grade One respondents, 90% agreed with the statement and 10% disagreed. Both groups' responses were significantly different from expected ($X^2(2, N = 12) = 24.000, p < 0.001, X^2(2, N = 10) = 14.600, p = 0.001$). Large proportions of both Grade Primary (83.3%) and Grade One (80%) teachers agreed that an understanding of story sequence is important for an early curriculum. No participant disagreed that story sequence was not a key part of early curriculum. Overall, Chi-square analyses revealed that both groups' responses were significantly different from expected ($X^2(2, N = 12) = 14.000, p = 0.001, X^2(2, N = 10) = 10.400, p = 0.006$). In addition to story sequence, teachers were asked if contextual background and print awareness were key aspects of early curriculum. All Grade Primary respondents agreed with this statement, which was significantly different than expected ($X^2(2, N = 12) = 24.000, p < 0.001$). Ninety percent (90%) of Grade One teachers

agreed and 10% were neutral. Chi-square analysis revealed that Grade One responses were significantly different than expected ($X^2(2, N = 10) = 14.600, p = 0.001$).

Open-ended Questionnaire Data

Teachers were given the opportunity to provide comments on the recent policy change through a set of open-ended questions (see Appendix A). Teachers were instructed to add any and all information they deemed important. Data for this analysis was collected from both Grade Primary and One teachers. Each question was analyzed for common and unique themes between Grade Primary and One teachers. Questions and teachers' responses are described below:

1. "What are the key characteristics that indicate to you that a child is ready to begin school?"

Primary and Grade One teachers' responses when asked to identify skills needed by children entering school were very similar and fell into four common themes. First, the majority of teachers for both grades indicated that children should have appropriate social and emotional skills. Teachers noted that children should be social and ready to enter school. Some stated that children should be able to get along with others and know how to behave. A few teachers pointed out that children should feel secure and not have attachment issues. Social skills were especially seen as relevant to play. The majority of teachers noted that children should be able to take turns and play co-operatively. Samples of teachers' responses are provided below:

"...understanding of rules or behaviour expectations."

"...play cooperatively with other children."

"... no anxiety when leaving mom."

The second theme that emerged in teachers' responses was the need for readiness skills. Most respondents indicated that children should have some basic academic readiness skills. For

example, participants noted that children should be able to hold a pencil, crayon or scissors correctly, print some letter/numbers or scribble, count to a set number, and print their own name. Teachers also felt that children should be ready to learn. They saw an interest in learning and/or reading as an asset when beginning school.

“...interest in using pencil, crayon, or marker on paper.”

“...ready to begin school when they see school activities as enjoyable rather than a task.”

“...knows some alphabet and numbers.”

“...ability to print simple form of own name.”

Tied in with academic readiness was the importance of being able to attend. The majority of teachers felt that children should be able to attend in order to learn. While some noted that this was a gradual process, others, especially primary teachers, felt that children should be able to attend to a task for 10-15 minutes.

“...relatively long attention span 10-15 minute intervals.”

“...ability to focus on a task for more than 5 minutes.”

“...growing attention span.”

“...can attend to tasks.”

Finally, teachers indicated that self-help skills were necessary when children enter Primary. Teachers stated that children should be able to dress, toilet, and eat independently.

“He/she should have good self-help skills such as dressing/undressing, eating on own, and toilet habits.”

“...can take of themselves independently, e.g. toilet care.”

“...can put on shoes and clothing.”

“...certain degree of independence with coordination of motor skills, and basic ability to dress self.”

2. “Please comment on your perception of the change in cutoff date entry.”

Primary and Grade One teachers' responses when asked to comment on their perception of the cutoff date entry change differed. There was one common theme however, that emerged from both groups. This was level of student readiness. A number of participants reported that the younger students in the class were less ready to begin Primary.

“...students are not ready for school when their birth date is between September and December.”

“... there were several four year olds that were extremely unprepared. Some are just now showing readiness.”

“...the little boys in particular are less ready.”

Other themes that became evident from Grade One teachers were that students demonstrated a younger maturity level. Teachers also felt that the curriculum did not allow enough time for play-oriented tasks, and that there were increased behaviour concerns within the class.

“Immaturity noted both socially and academically.”

“... concerned with the behaviours that will have to be dealt with...”

“...many more children seem to be in “play mode”.”

Furthermore, two Grade Primary teachers mentioned that they were disappointed that teachers were not consulted before this policy change took effect.

“...surprised that Primary teachers were not consulted as all.”

“...teachers should have more input into whether students are ready to enter.”

3. “How has this change impacted you?”

Primary and Grade One teachers' responses when asked how this change has impacted them were very similar and fell into three common themes. First, the majority of teachers for

both grades indicated that they had difficulty meeting students' needs. Teachers noted that there is a larger range of needs within the classroom. Teachers also identified that they required more resource and school psychology assistance, and that they had to differentiate their task instruction more.

“I struggle to reach all needs of this extremely large class with many levels...”

“...I found it a great challenge to meet the needs of the wide range of learners in my classroom.”

“More referrals for resource assistance and psych consults for the younger students.”

“...needs are more pronounced with the younger students in the class.”

“... more differentiation was needed.”

The second theme that emerged in teachers' responses was increased behaviour management. Teachers felt that as a result of the cutoff change they have been required to address more behavioural problems.

“The behaviour of some of the younger children has needed to be addressed...”

“Much more behaviour management...”

“...more tears and classroom behaviour management.”

Finally, teachers indicated that as a result of the cutoff change they have experienced increased stress. Teachers report that their job has become more stressful and hectic, and they feel more pressured to meet curriculum outcomes.

“ It places a lot more pressure on teachers and students to achieve before some are ready”

“More pressure than ever to meet reading levels...”

“Job has become more hectic and stressful.”

4. “Describe any accommodations you have had to make to meet the needs of this larger group.”

Primary and Grade One teachers' responses when asked what accommodations they have had to make were similar and fell into two common themes. First, a number of teachers for both grades indicated that they have had to increase structured play time. Teachers report that they have had to make time within the curriculum to incorporate more play and play-oriented activities.

“Younger children require more play-oriented activities.”

“More time is needed on structured play but with curriculum demands and not enough time in the day, it’s hard to get this.”

“...I have been trying to include more play-based activities.”

The second theme that emerged in teachers’ responses was increased differentiated instruction. A number of teachers report that they have had to make changes to the way they teach the curriculum. Teachers also report that they have had to allow students to work on some tasks longer, and that they have had to broaden the curriculum to meet all needs.

“ I have had to make changes to how I teach the curriculum...”

“...some children to stay at some activities for a longer period of time e.g., letter recognition may take longer for some students.”

“I have certainly broadened the curriculum to accommodate a greater variety of activities.”

“Differentiated tasks as the range of abilities is large.”

“...more small group instruction.”

5. “How do you feel the cutoff change will impact students’ overall performance?”

Primary and Grade One teachers' responses when asked how they felt the change will impact students' performance were similar and fell into two common themes. First, a number of teachers for both grades indicated that younger students would catch up, but that this may take several years.

“I suspect the younger students will “catch up” for a number of years...”

“May take them awhile to catch up.”

“The younger students do catch up.”

The second theme that emerged from Primary and One teachers' responses was that younger students would continue to face challenges in the future. A number of teachers felt that students who are not performing well now will continue to struggle in later years. Teachers also felt that the less mature students will face difficulties in years to come, and that differences between young and old-for-grade will be seen when they enter into college/university.

“...those who do not have the readiness skills that are necessary and meeting a challenge in grade primary will have a larger challenge in Gr. 1 and Gr. 2.”

“... maturity level will impact future overall performance.”

“...differences will become more apparent at the end of their school career.”

6. “Please describe the nature of preparation you have received at the board and provincial level to support the change in age of entry.”

Primary and Grade One teachers' responses when asked about what preparation they had received were similar and fell into two common themes. First, a number of teachers for both grades indicated that they had received in-service days. Teachers reported that they had received one and two day in-services offered by their board and Department of Education. A few teachers

also commented that these in-services were not helpful.

“The primary teachers have been given in-servicing...”

“Our board provided in-servicing on the Dept. of Ed’s document.”

“There were two in-service days last year. I really did not find that I learned anything new at them.”

“Department of Education gave us in-servicing last year after implementing the change.”

The second theme that emerged from Grade One and Primary students when asked what preparation they received to support the change was that they had received no support.

“None – it was a wait and see what might be needed”

“...no support...”

“None.”

7. “Please describe any planning or changes in practice that occurred within your school/district in response to the change in cutoff date.”

Grade Primary and One teachers’ responses when asked about any changes in practice that occurred within their school as a result of the policy change were similar and fell into two common themes. First, a number of teachers in both grades indicated that they had received extra materials. Several schools purchased extra materials such as a sand table and guided reading tables to support learning through play.

“The primary classroom received materials to help support more play based activities.”

“We have received some resources such as guided reading tables and table top white boards.”

“Our school purchased a sand table, guided reading tables, and other play related materials.”

The second theme to emerge from both Grade Primary and One teachers was that they felt nothing had been done at their school level to support the age entry policy change. Several teachers reported that they were encouraged to continue teaching the curriculum as they always had, whereas, others received no direction from school administration.

“ We were told to continue with our current practices...”

“There was no mention of changes in practice at the school or district level.”

“Not sure of any.”

“None.”

The implication of these results is discussed in greater detail in the discussion section.

Chapter 6: Discussion

Demographic Information

Descriptive statistics indicated that the Grade Primary group had a higher proportion of teachers over the age of 45. More Grade Primary teachers had also completed a Master's of Education degree, and had taught in an excess of 20 years compared to Grade One teachers. In general, Grade Primary respondents were older, had completed more education, and had more teaching experience compared to their Grade One counterparts. Therefore, Grade Primary teachers' responses could be very different from Grade One teachers' responses based on the very nature of their age, experience, and education. Having more experience would provide Primary teachers with a greater number of classes to make comparisons. Additionally, their extra experience and education may contribute to better developed coping strategies and resources. As such, this may have resulted in fewer perceived classroom difficulties, since these teachers may have perceived that they could handle the situation. These teacher characteristics should be explored further in future research.

Research Question 1

Overall, it was found that Primary teachers' perceptions of how the 2008-2009 Grade Primary and 2009-2010 Grade One students were functioning academically, cognitively, socially, and emotionally were not significantly different from what would be expected by chance. This indicates that teachers were relatively evenly spread amongst the three response categories (i.e., agree, disagree, and neutral). Some preferences were observed with a greater proportion of teachers either agreeing or disagreeing with questionnaire statements. For example, 60% of respondents perceived that the expressive and receptive language abilities of last year's

class were comparable to other classes they have taught, whereas 30% were neutral and 10% disagreed. Even though their responses were not significantly different from researcher expectations, it is obvious that the majority of Grade Primary teachers perceived no differences between last years' class and other Primary classes they taught in relation to expressive and receptive language abilities. Furthermore, half of those who agreed had obtained a Master's of Education degree. It is possible that this training coupled with their experience allowed them to become more aware of younger students' language abilities and, consequently, they were able to discern differences between the groups more easily. It is also possible that teachers are simply identifying the natural variations that exist among children's abilities. Future research should ensure that a larger sample size is used so that characteristics can be further investigated.

Additionally, research conducted by Mashburn and colleagues (2009) found that younger students' receptive and expressive language abilities grow as a result of their interaction with older students, who have more developed expressive and receptive language abilities. Therefore, it is possible that Primary teachers did not perceive differences between last years' class and other classes they have taught because of the growth of younger students' receptive and expressive language abilities, due to their interaction with their older peers. Given that teachers were asked to retrospectively recall this skill, it is possible that they were not truly recalling the classes' abilities.

Interestingly, it was found that the majority of Primary teachers either disagreed or were neutral when asked if the younger students in their class were able to meet curriculum outcomes based on language ability. Even though teachers perceived no differences in these students' receptive and expressive language abilities, many perceived that the younger students were not able to meet language-based curriculum outcomes. Research has found that children who are six-years-old when they begin school score significantly better on language tests compared to five-

year-olds within the same classroom (Davis et al., 1980). It has also been found that six-year-olds are more ready to meet the language requirements of the classroom compared to five-year-olds. Furthermore, research has found that children who have well-developed receptive and expressive language abilities when they enter school demonstrate significantly greater school success (Agostin & Bain, 1997; Hohm et al., 2007; Mashburn, Justice et al., 2009). This may indicate that even though last years' young Primary students may have developed greater expressive and receptive language abilities, resulting from exposure to their older peers, it was not enough to create equilibrium between young-for-grade and old-for-grade students' academic performance. This would suggest that language ability alone is not a good indicator of school readiness.

Previous research has found that younger students entering Kindergarten are more immature and have more social skills problems (Rimm-Kaufman et al., 2000). Children with poor social and emotional skills are found to experience less academic success and have poor self-esteem (Agostin & Bain, 1997; Thompson et al., 1999; McClelland et al., 2000). In the current study, when asked if the younger students in their class were able to meet the curriculum outcomes that were reliant on social skills, participants' responses were fairly evenly spread across the response categories, the majority of participants (40%) either disagreed or were neutral, with the smallest proportion (20%) agreeing. It may be possible that a large portion of respondents were "neutral" because they were being asked to recall details about last years' class. If they were unsure or could not remember clearly, they may have been more likely to indicate a neutral response. However, results from this question are consistent with the literature on social-emotional functioning and age of entry. From an examination of the literature, it is found that there are inconsistencies. Several researchers find that there are social-emotional differences between young-for-grade and old-for-grade, whereas other researchers find there are

no differences (Kinard & Reinherz, 1980; Breznitz & Teltsch, 1989; Spitzer, et al., 1995; Agostin & Bain, 1997; Thompson et al., 1999; McClelland et al., 2000; Stipek, & Byler, 2001; Zill & West, 2001; Dhuey & Lipscomb, 2006; The National Institute of Child Health and Human Development (NCHD), 2007). Therefore, it is not surprising to find that teachers' perceptions are inconsistent.

On open-ended questionnaire data teachers revealed that teachers felt that children entering school should have appropriate social and emotional skills. Teachers stated that children should be social and ready to enter school. This opinion is consistent with Peth-Pierce's (2000) findings that students who are socially and emotionally ready to begin school get along well with their peers, can communicate with their teachers, and are able to make friends. This, in conjunction with findings that 40% of teachers perceive that students are not meeting outcomes reliant on social skills indicates that many children within this class do not possess these skills. Therefore, extra time will be needed in the classroom in order to ensure that students have appropriate social skills.

When maturity was examined, 30% of Primary teachers perceived that the issues were the same compared to other classes they have taught, 40% perceived that the issues were different, and 30% were neutral. Again, a large portion of teachers were neutral on the issue. However, the majority of respondents perceived the issues related to maturity to be different compared to other classes they have taught. Teachers' comments from open ended questions reveal that teachers' feel that students demonstrated a younger maturity level. This is consistent with the findings of Rimm-Kaufman and colleagues (2002), indicating that teachers feel that many students entering Kindergarten are immature.

Research has found that students who enter school with behaviours deemed appropriate for the classroom may be better able to succeed academically (Griffin, 1997). Research has also

found conflicting results when examining age of entry and behaviour problems. On one hand, researchers have found that the age at which a child begins school does not influence his or her behaviour in later grades (Bikel et al., 1991). Conversely, other researchers have demonstrated that the age of entry into school significantly affects future behaviour (Byrd et al., 1996; Byrd et al., 1997; Lincove & Painter, 2006). Results from the current study found that Primary teachers were divided on whether behaviour problems in last years' class were similar to previous classes they have taught. Forty percent of respondents perceived that behaviour problems were the same as previous classes they have taught, whereas 40% did not perceive behaviour problems to be comparable and 20% were neutral. Given that research is still inconclusive about the effects of age of entry on behaviour problems, it is not surprising to find that respondents are evenly distributed amongst the response categories. The pattern of participants' responses is consistent with the current state of the literature.

When teachers' comments were analyzed however, it was found that a number of teachers were concerned with the behaviour problems in their classroom and the amount of behaviour management they have had to do. Teachers' comments are inconsistent with Bikel and colleagues (1991) research which indicated that in the elementary grades there are no behavior differences between old-for-grade and young-for-grade students. However, when teachers' perceptions were explored in relation to behaviour differences it was found that a large percentage of teachers perceived that behavior problems were not different from other classes they have taught. This finding is consistent with Bikel and colleagues (1991) research. Teachers' comments more than likely represent those who perceived that behavior differences did not compare to previous classes they have taught.

Respondents were also asked if they perceived the dynamics of last year's classroom to be different due to the age change, in comparison to other classes they have taught. The results

indicated that the majority (60%) of participants perceived the dynamics of last year's class to be different compared to other classes they have taught. Cross-tabulation analysis revealed that of the 60% who agreed with the statement, 83.3% of were over the age of 45, 50% had been teaching for over 20 years, and 50% had been teaching Grade Primary between 11 and 20 years. Since these participants have been teaching for many years, they have been privy to many changes over the course of their teaching careers and, as such, have had more classes to compare to. On the other hand, younger teachers are limited in the number of classes they have as a basis for comparison and are limited in their teaching experience. It may have been possible that teachers who have only been teaching for one to five years viewed classroom problems as a result of their narrow teaching experience rather than a reflection of the classroom dynamics.

Research Question 2

Overall, significant differences were found when teachers perceptions of the recent policy change were analyzed. Based on research conducted by North and Davies (1989), participants were asked various questions on their perceptions of the recent policy change. When asked if the change in cutoff date was in the best interest of students, it was found that 80% of Grade One teachers perceived the cutoff date change to not be in the best interest of students. However, 20% perceived the cutoff to be in students' best interest. Alternatively, the majority (66.7%) of Grade Primary teachers were neutral regarding the cutoff change. However, 33.3% perceived that the cutoff change was not in students' best interest. Both patterns of responding are inconsistent with North and Davies (1989) research, which indicated that 91% of teachers in their sample perceived that a similar policy change was in the best interest of the child. Interestingly, no Grade Primary respondent strongly perceived the cutoff date to be in the students' best interest, whereas 20% of Grade One teachers perceived the cutoff to be in the students' best interest. As

this is the Primary respondents' second year of teaching with the extended date it is possible that teaching this extended group for two years has given them more experience and, consequently, has left them unsure if the entrance date is in students' best interest. Furthermore, these teachers may be experiencing burn out and frustration, as a high proportion (40%) perceived the behaviour issues were different from previous classes. A greater proportion of Grade One teachers may have perceived the policy change to be the best interest of students because they have only taught this group for one year and, as a result, saw some of the positive influences it had on the younger students, such as possible greater language development. Moreover, a large portion of Grade One teachers were younger and had less teaching experience and, therefore, have fewer classes to compare students to. Similarly, a larger portion of Grade One teachers may have perceived the cutoff date to not be in the best interest of students because it was their first time teaching this extended group. Due to the fact that the experience was recent for them with the result that the problems and issues were fresh in their mind, this may have caused them to demonstrate a greater preference to this response category.

Additionally, when teachers were asked if the revised cutoff date had a positive impact on classroom performance, Grade Primary teachers were divided with 50% neutral and 50% disagreeing. Grade One teachers, however, demonstrated a greater preference, with 80% disagreeing that the cutoff has had a positive impact on classroom performance and 20% agreeing that the impact has been positive. Again, the difference between the two groups could have been attributed to teachers' differences in age and teaching experience. Furthermore, Grade One teachers could be feeling more overwhelmed, as this is their first year teaching this extended class. Also, there are greater curriculum demands placed on students in Grade One. As a result, teachers may have seen greater differences in students' abilities given these increased curriculum demands. Research has also indicated that there are persistent differences between old-for-grade

and young-for-grade students (Baer, 1958; Beattie, 1970; Datar, 2004; Bedard & Dhuey, 2006; McEwan & Shapiro, 2008). Research has also found that academic differences even out in late elementary (Davis et al., 1980; Kinard, & Reinherz, 1986; Morrison et al., 1995; Stipek, & Byler, 2001; Oshima & Domaleski, 2006; NCHID, 2007). As a result, academic differences may still remain in Grade One.

Student readiness, or how prepared a student is to enter school and learn, has been found to be predictive of school success (Patrick, 2000; Oliver et al., 2005; Lemelin et al., 2007). When participants of the current study were asked if the revised cutoff made a difference in the level of student readiness, the majority of both Grade Primary (75%) and Grade One (90%) respondents perceived that the cutoff change had made a difference in the level of student readiness. From teachers' comments it is evident that they feel that the younger students in their class, especially boys, are not as well prepared to begin school. This is not surprising given that Nova Scotia research (Understanding the Early Years Halifax West & Area, 2009) has found that within some communities, up to 70% of children are "not on track" with regard to their cognitive and language abilities, and as many as half of all children entering Grade Primary are at a disadvantage. Furthermore, The Nova Scotia Government had piloted a pre-primary program which focused on developing social skills, and acquiring foundation skills in the areas of reading, writing, and mathematics (Nova Scotia Department of Education, 2005). Due to funding, the government decided to cancel the program and extended the primary cutoff date (CBC News, 2008). Given that 40% of Primary teachers' perceive that younger students are not meeting curriculum outcomes, based on social, language, and memory skills, this indicates that younger students may benefit from a pre-primary program rather than an extended Primary entry date.

When teachers were asked if students should attend a school-based pre-primary program, the majority of Grade Primary (58.3%) and Grade One (70%) teachers agreed that

students should attend a pre-primary program. In order to ensure that students are successful when they enter school and are immersed in a rigorous curriculum, the Nova Scotia government may want to explore options of creating a pre-primary program. An additional option would be a revision of the primary curriculum, as it has not been revised since the policy change has been implemented (Nova Scotia Department of Education, 1999). Changes could be implemented, allowing for the further development of social skills through increased play (North & Davies, 1989). This would permit teachers to implement activities that enable students to develop skills appropriate for social interaction through the medium of play.

Relative to resources, 83.3% of Grade Primary and 100% of Grade One teachers perceived that they would need more resources to meet the needs of this diverse age group. This is consistent with North and Davies (1989) findings that Australian teachers believed that they would need more resources when the entry age policy of this country was changed. In general, this does not deviate from education literature which has indicated that teachers struggle to implement effective practices, resulting from lack of resources (DeSimone & Parmar, 2006; Sindelar et al., 2006; Ferretti & Eisenman, 2010). Comments provided by teachers in the open-ended questions however, demonstrate that Primary classrooms were provided with additional resources such as sand tables, guided reading tables, and other play related materials. It is clear why Grade One teachers perceive that more resources will be needed as they did not receive any new resources, however, it is unclear from this information what additional resources Grade Primary teachers perceive they need. It may be of interest for individual school boards to examine what resources teachers perceive they need to ensure they are meeting students' needs.

Furthermore, results indicate that 8.3% of Grade Primary teachers and 40% of Grade One teachers perceive they are not ready to meet the needs of this diverse age group. Interestingly, teachers' comments indicate that they have received in-servicing from their

individual school board and/or the Department of Education on this change. Several teachers felt that the in-servicing came to late (i.e. after the implementation) or was uninformative. These are important comments for board and Department of Education members to be aware of. This should signal to these officials that teachers need more in-servicing on this change. It would be helpful for boards and the Department of Education to further explore what type of in-servicing teachers feel they need. Furthermore, teachers' comments also revealed that a number of teachers did not actually receive the in-servicing training. This further supports the notion that additional in-servicing and/or professional development is required for these teachers.

As a larger majority (66.7%) of Grade Primary teachers perceive they are ready to meet the needs of this group, it may be helpful to have Grade Primary teachers act as mentors for Grade One teachers. Furthermore, Grade Primary participants were older, had more teaching experience and more education than Grade One teachers. These variables could have attributed to the difference in responses. Regardless, the more experienced Grade Primary teachers could have helpful advice for the less experienced Grade One teachers.

Research Question 3

Overall, significant findings were found when it came to teachers' perceptions of key aspects of early curriculum for beginning learners. The first key curriculum area that teachers were queried about was letter recognition and letter-sound relationship. Research has found that letter and letter-sound knowledge are foundational skills which contribute to future academic success (Rayner et al., 2001; McDonald-Connor & Morrison, 2004). Furthermore, children who know their letters prior to beginning school are stronger readers compared to those who do not know their letters prior to school entry (Catts, 1997). Therefore, it is not surprising to find that 100% of Grade Primary and 90% of Grade One teachers agreed that letter and letter-sound skills

should be a part of an early curriculum. Research indicates that letter-sound knowledge is related to age and experience (McNamara et al., 2004). This could explain why 30% of respondents perceived that the language abilities of this class were different from other classes they have taught, as the younger students' experiences and development of letter-sound combinations would not be the same as their older classmates.

Similar to letter recognition, 100% of Grade Primary teachers and 90% of Grade One teachers agreed that number recognition should be a key aspect of an early curriculum. This is not surprising, as research has found that number recognition, just like letter recognition, is predictive of future academic success (Rayner et al., 2001; MacDonald-Connor & Morrison, 2004). Therefore, students coming into school should have a good understanding and recognition of their letters.

In addition, teachers' were asked if they perceived phonological awareness to be a key component of an early curriculum. Results indicate that 100% of Grade Primary teachers and 80% of Grade One teachers perceived phonological awareness to be an important component. Similar to letter-sound knowledge, strong phonological awareness skills are predictive of future reading outcomes (Schatschneider et al., 2004). Research has found that phonological awareness is related to experience rather than age (McNamara et al, 2004). Therefore, it is vital that students have some level of phonological awareness when entering school if we want to ensure their academic success.

Furthermore, when teachers' perceptions of the use of metacognitive aspects of literacy and numeracy in an early curriculum were explored, it was found that 91.7% of Grade Primary teachers perceived it to be an important aspect of an early curriculum, whereas only 60% of Grade One teachers perceived it to be important. Differences in responding could have been attributed to the higher level of education attained by the sample of Grade Primary teachers.

Teachers with their Master's degree may be more aware of metacognitive teaching, whereas the younger, less experienced Grade One teachers may not have this knowledge. On the other hand, when it came to the metacognitive aspects of numeracy 70% of Grade One teachers perceived it to be an important part of an early curriculum. The difference in ratings between metacognitive literacy and numeracy could be attributed to the Nova Scotia curriculum. The current math curriculum is focused on students understanding abstract concepts and thinking about math processes (Nova Scotia Department of Education, 1999). Teachers may be more aware of the importance of metacognitive teaching for math. Overall, research (Rayner et al., 2001; McDonald-Connor & Morrison, 2004) has indicated that students who have metacognitive skills pertaining to literacy and numeracy are more ready to begin school. Therefore, pre-primary curriculums should focus on metacognitive literacy and numeracy in order to help prepare students for the demands of our current Nova Scotia curriculum.

A large proportion of both Grade Primary (83.3%) and Grade One (80%) teachers agreed that an understanding of story sequence is important for an early curriculum. In addition to story sequence, teachers were asked if contextual background and print awareness were key for an early curriculum. All of Grade Primary respondents and 90% of Grade One teachers agreed with this statement. Research has indicated that emergent reading skills are indicative of students who are ready to begin school and are related to greater academic success (Rayner et al., 2001; McDonald-Connor & Morrison, 2004). Print awareness alone is not enough to ensure academic success. Many of these skills (i.e., letter recognition, letter-sound knowledge, phonological awareness, print awareness, and metacognitive aspects of literacy) rely on the other being present in order to ensure academic success. For example, with respect to reading, print literacy skills alone are insufficient if letter recognition and phonological awareness skills are not yet developed. Therefore, a pre-primary curriculum should focus on teaching all of these skills in

relation to each other.

In addition to these key curriculum areas teachers also identified several readiness skills they felt were important for a pre-primary program. These skills included: being able to hold a pencil, crayon or scissor correctly, print some letter/numbers or scribble, count to a set number, and print one's own name. School-readiness literature indicates that students who are the best prepared to meet the requirements of the classroom are those who have emergent reading and writing skills (Rayner et al, 2001; McDonald-Connor & Morrision, 2004). Therefore, it is not unexpected to find that teachers feel these skills are important aspects of a pre-primary program.

Even though teachers identify these readiness skills as being important it is found that 75% of Primary and 90% of Grade One teachers perceive that the cutoff made a difference in the level of student readiness. Therefore, supports for Nova Scotia teachers and students are needed in order to provide them with the best pre-primary education possible. This will ensure that children are entering school prepared to learn and meet the rigorous curriculum demands.

Open-ended Questionnaire Data

Several interesting themes were found from teachers' responses to open-ended questions. The first common theme to emerge from both Grade Primary and Grade One teachers when asked about readiness skills was the importance of being able to maintain attention. The majority of teachers felt that children should be able to attend in order to learn. While some noted that this was a gradual process, others, especially primary teachers, felt that children should be able to attend to a task for 10-15 minutes. This opinion is consistent with Alexander and colleagues (1993) research which found that students who have a weaker attention span obtain significantly lower academic scores compared to students who have a high attention span. Students who are

better able to focus and attend to a task retain more information resulting in greater academic knowledge. It is therefore, no surprise that teachers feel that this was an important skill for children entering primary to possess.

A large number of teachers also indicated that self-help skills were necessary when children enter primary. Teachers stated that children should be able to dress, toilet, and eat independently. It was not unexpected that teachers would feel that self-help skills are an important indicator that a student is ready to begin school. Teaching time is limited and therefore, teachers do not want to have to focus their instruction time on helping students use the washroom and dress themselves. Therefore, it seems that it will be important to ensure that students are entering school have these skills so time can be focused on learning.

A further theme that emerged from teachers was the importance of play-oriented tasks. Several teachers felt that these types of activities should be a core part of the day for students. However, teachers felt that the curriculum did not allow enough time for play-oriented activities and therefore, they either had to make time within the curriculum or rely on other less desired methods. When a similar policy change occurred in Australia, North and Davies (1989) commented that the largest curriculum change was increased play time. From Nova Scotia teachers comments it appears that incorporating structured play into the curriculum is vital. The Department of Education may wish to explore how they can achieve curriculum outcomes through this medium. Furthermore, putting these types of activities in place would assist in developing younger students' social skills, an area which 40% of teachers perceive students are struggling.

As a result of having many students not prepared for school and feeling that the curriculum did not allow for play-oriented activities to help the younger students meet curriculum outcomes, many teachers reported increased stress levels. Many teachers felt that

their jobs had become more stressful and hectic. Teachers also reported feeling as though they are under more pressure to meet curriculum outcomes. These comments in conjunction with the finding that 40% of teachers perceive that younger students are struggling to meet curriculum outcomes demonstrates that a Primary curriculum revision may be needed. Furthermore, these comments suggest that the pre-primary curriculum should be reviewed so that when students enter school they have the basic “routine”, skills so that time is not spent learning these behaviours at the expense of teaching time.

A further theme to surface from open-ended questions was the feeling that as a result of the cutoff change teachers are struggling to meet the wide range of needs within the classroom. A number of teachers commented that they feel the younger students have more pronounced needs which teachers cannot meet. While this comment to the open-ended questions seems out of context given some of the quantitative data, it is not surprising to find that teachers struggle to meet the needs of this class as research (Stipek & Byler, 2001; Datar, 2004; NCHID, 2007; Bedard & Dhuey, 2008) has indicated that there are academic differences between old-for-grade and young-for-grade students. As a result of teachers’ comments it appears that professional development on teaching students with varying abilities may be justified. Furthermore, it may be of interest for school boards and the Department of Education to explore the possibility of allocating Resource teachers in the classroom for a portion of time to complete small group work with these struggling students.

As a way to cope with the high level of learning demands within the classroom, several teachers have reported that they have had to rely more on differentiated instruction. These comments tend to indicate that there is a need to make sure that teachers are clear on what differentiated instruction is and how to use it appropriately in the classroom. Professional development days within individual school boards may want to focus on this topic. When

differentiated instruction is used correctly it can be an excellent resource to help teachers meet the varying abilities within their classroom.

When teachers were asked how they felt the cutoff change would impact students' overall performance two common themes emerged. First, a number of teachers for both grades indicated that younger students would catch up, but that this may take several years. Teachers comments are consistent with research findings on academic differences between old-for-grade and young-for-grade students. Researchers have demonstrated that the initial academic differences between these two groups even out by about middle to late elementary (Davis et al., 1980; Kinard, & Reinherz, 1986; Morrison et al., 1995; Stipek, & Byler, 2001; Oshima & Domaleski, 2006; NCHID, 2007). As students move through the grades the initial academic differences, that 40% of teachers perceived to be present, may actually dissipate. As a result, some of the issues teachers have been dealing with (e.g., increased stress, wide range of learners, etc.) may cease to exist as well. It would be interesting in the future to examine what, if any, academic differences exist between old-for-grade and young-for-grade students.

The second theme that emerged was that younger students would continue to face challenges in the future. A number of teachers felt that students who are not performing well now will continue to struggle in later years, that the less mature students will face difficulties in years to come, and that differences between these two groups will be really seen when they enter into college/university. These teachers' comments are in line with academic research that finds old-for-grade students persistently perform better than young-for-grade students (Baer, 1958; Beattie, 1970; Datar, 2004; Bedard & Dhuey, 2006; McEwan & Shapiro, 2008). The differences in teachers' responses demonstrate that more research is needed on the academic differences between old-for-grade and young-for-grade students. As mentioned in the literature review section there are three different findings when it comes to academic differences. Therefore, it is

no surprise to find that teachers have two different views.

One theme that surfaced and stood out was that teachers were disappointed that they were not consulted more actively before this policy change took effect. These types of comments are important for the policy makers to be aware of. As teachers indicated that they should have some level of input when these types of changes may be occurring as they are directly affected. When the age entry policy changed teachers were directly dealing with what they feel were less prepared students. It is vital that policy makers are aware how teachers feel about this change and the importance of being included in future decisions.

Similarly, teachers indicated some disagreement as they felt nothing had been done at their school level to support the age entry policy change. These comments in conjunction with comments demonstrating that some schools supported the change by purchasing new items shows how change can be embraced in many different ways. The aforementioned comments demonstrated that some schools embraced the change and attempted to provide teachers with additional resources; whereas several schools continued to teach and practice as if no change had occurred. It would be of interest for future research to examine if the teachers who were in the schools that purchased extra resources were also the teachers who perceived that the younger students were functioning well, and if the teachers who were in the schools who had continued on as usual were the teachers who identified more difficulties, or vice versa.

Overall, the open-ended questionnaire data gave more insight into teachers' perceptions of the policy change and functioning of this class. From these comments it is apparent that teachers could benefit from further in-service training, especially focusing on differentiated instruction and play-oriented tasks. Teachers' comments also indicate that the Department of Education may wish to explore curriculum changes/revisions, especially around implementing play-oriented tasks. Furthermore, it has become evident from teachers' comments that an

exploration into the implementation of a pre-primary program is warranted. A pre-primary program focused on school readiness skills would ensure that students are beginning primary at a level that ensures their academic success.

General Discussion

In general, research has found that within particular Halifax communities, up to 70% of children are “not on track” in terms of their cognitive and language abilities, and as many as half of all children entering Grade Primary are at a disadvantage (Understanding the Early Years Halifax West & Area, 2009). Additionally, research has found that children from low socioeconomic status families are more likely to begin school with limited language, social, and emotional abilities (Rhode Island Kids Count, 2005). Due to this, several pre-primary programs have been implemented in Canada and the United States, focused on providing children with a curriculum which enriches their language, is developmentally appropriate, and gives attention to individual needs (Reynolds, Temple, Robertson, & Mann, 2001; Campbell et al., 2002; Abbott-Shim et al., 2003; Smith, 2003; Hauser-Cram, 2005; Belfield, 2006). Instead of implementing a pre-primary program that focuses on the further development of these skills, the Nova Scotia provincial government chose to extend the cutoff date to enter Grade Primary. Children can now begin Grade Primary if they are five years old by December 31st. Previously they had to be five years old by October 1st. It is possible that the policy shift, combined with the finding that approximately 50% of children enter Grade Primary at a disadvantage may further exacerbate the situation.

Forty percent of teachers perceived that younger students were not able to meet curriculum outcomes based on language, memory, and social skills. Teachers also perceived that classroom dynamics, behaviour problems, and maturity were different compared to other classes

they have taught. Furthermore, a large number of teachers perceived that the cutoff change did not lead to improved classroom performance. In fact, teachers perceived that students were not as well-prepared to begin school. Results from the current study indicate that teachers' perceived there were differences within this class compared to others they have taught. Furthermore, many perceived that these students were not as well prepared as in years' past

With regard to financial resources, extending the cutoff date appears to be a financially wise decision (\$7.5 million) compared to funding a province wide pre-primary program (\$32 million). However, from a long term financial perspective, there may be no beneficial savings as this change may actually lead to other issues. For example, young-for-grade students tend to have greater academic difficulties, may become depressed, and may take part in self-harming behaviours which may result in more long term costs (Davies et al., 1980; Kinard & Reinherz, 1986; Agostin & Bain, 1997; Lincove & Painter, 2006; Hohm et al., 2007; Bull et al., 2008; Mashburn et al., 2009).

Chapter 7: Limitations and Future Directions

Limitations

The most obvious limitation of the study is the generalizability of the results. Data collection was attempted in two other Nova Scotia school boards with no success. Therefore, the population of respondents could have unique characteristics that make their responses significantly different from other teachers across Nova Scotia. Furthermore, all respondents were female and, as such, the responses may not have represented the opinions of male Grade Primary and One teachers. Moreover, the sample size was relatively small. Therefore, this group of participants' opinions may not be a true measure of Nova Scotia teachers. Given that the sample size was so small the power of the Chi-square test was greatly diminished. This increases the chance of insignificant findings. Therefore, several of the non-significant findings may have been found to be significant had the sample size been larger.

Descriptive statistics indicated that the Grade Primary group had a higher proportion (58.3%) of teachers over the age of 45. More Grade Primary teachers had also completed a Masters of Education degree, and had taught in excess of 20 years compared to Grade One Teachers. In general, compared to their Grade One counterparts, Grade Primary respondents were older, had completed more education, and had greater teaching experience. Therefore, Grade Primary teachers' responses could be very different from Grade One teachers' responses based on the very nature of their age, experience, and education. In addition, this may have not been a true representation of all Grade Primary and One teachers. Had the sample size been larger, age, experience, and education may not have been an influencing factor.

A further limitation of the study is that fact that the Primary teacher data was

retrospective and, therefore, there was a possibility that the information participants were recalling was not accurate. Furthermore, participants were given a week to complete the questionnaire and, consequently, may have discussed their answers with other teachers who were also completing the questionnaire. This may have caused teacher attitudes and opinions to be clouded by others' thoughts and opinions. Having an online questionnaire would remove this possibility. Furthermore, several of the teachers who completed the questionnaire were also working with the researcher, as she was completing psycho-educational assessments with their students. As such, teachers may have responded in a manner to please the researcher. The chance of this was diminished by ensuring that teachers' responses were anonymous. A further limitation of the study is that the questionnaire was developed by the researcher and her supervisor and thesis committee. This questionnaire has not been validated and, therefore, may not be a true measure of teachers' perceptions. Future studies could examine the validity of this questionnaire for its use with this population in later studies.

Future Directions

Future studies should consider approaching teachers through the Nova Scotia Teacher's Union (NSTU) rather than relying on individual school board approval. Future studies should also consider an online format so the completion and collection of the questionnaire is more simplistic. Future research may wish to follow this group of students into middle elementary, late elementary, and high school. This is a natural divide of young-for-grade and old-for-grade students. Therefore, it would be interesting and contribute further to the research on academic differences between these two groups at different points in their academic careers. Additionally, the current study only focused on teachers' perceptions. It would be of interest to systematically evaluate if there are any academic achievement differences between the two groups. This could lead to better program development and further insight into academic problems related to age of

entry. Future research may also wish to follow these students and examine behavior difficulties. This would be of particular interest given the inconsistent state of the current literature. Results could lend further to identifying if behavior difficulties are seen more in old-for-grade students and approximately when these difficulties become apparent.

Moreover, the current study found that a large portion (83.3% and 100%) of Grade Primary and One teachers perceived that they would require more resources to meet the needs of this unique age group. Future research may want to focus on what specific resources teachers feel they need and what is available to them. This type of research would be helpful for school boards and the Department of Education when it comes to planning professional development days. A large portion of Grade One teachers also perceived they were not ready to meet the needs of this age group. Future studies could examine why teachers perceive they are not prepared for this transition. Furthermore, research could focus on characteristics, such as age, gender, teaching experience, education, personality, and teaching style, as possible variables related to teaching readiness.

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Appendix A

- Teachers' Perception of the Entrance Age Policy Change Questionnaire

TEACHERS' PERCEPTIONS OF THE ENTRANCE AGE POLICY CHANGE

A. Demographic Information

Please complete the following information by checking all relevant boxes.

1. I am currently teaching grade:

Primary One

2. Gender:

Male Female

3. Age:

20-25 26-35 36-45 46 or over

4. Level of teacher certification:

TC 5 TC 6 TC 7 Other

5. What degree(s) do you have completed?

BA BSc. BEd. MA MEd. Other

6. How many years have you been teaching?

1-5 6-10 11-20 20 or more

7. How many years have you been teaching primary?

1-5 6-10 11-20 20 or more

8. How many years have you been teaching grade one?

1-5 6-10 11-20 20 or more

B. POLICY CHANGE

Please rate your perception of the following statements in relation to last years' (2008-2009) primary class, and this years' grade one class. Please use the scale of 1 to 5, with 1 being strongly disagree and 5 being strongly agree. Place a check mark or an "x" in the box that corresponds to your level of agreement.

Statement	Strongly Agree 1	2	3	4	Strongly Disagree 5
The revised cutoff date change to December 31 is in the best interest of children.					
The revised date of December 31 is a better cutoff date than October 1.					
The revised cutoff date had a positive impact on classroom performance.					
The revised cutoff date made no difference in the level of student readiness.					
All children should attend a school based funded pre-primary program.					
Children should not begin formal schooling until age 6.					
The revised cutoff date will result in increased class sizes.					
More resources will be needed to meet the needs of the diverse age group entering primary.					
I am ready to meet the needs of all the students in my class regardless of the wide age range.					

C. YOUNG LEARNERS

Please rate your perception of whether the following curriculum areas should be covered in a beginning curriculum. Please use the scale of 1 to 5, with 1 being strongly disagree and 5 being strongly agree. Place a check mark or an “x” in the box that corresponds to your level or agreement.

Statement	Strongly Agree 1	2	3	4	Strongly Disagree 5
Key aspects of early curriculum for beginning learners include:					
i. Letter recognition					
j. Letter-sound relationship					
k. Phonological awareness					
l. Metacognitive aspects of literacy					
m. Number recognition					
n. Metacognitive aspects of numeracy					
o. Understanding of story sequence					
p. Contextual background and print awareness					

D. PROGRAMMING**TO BE ANSWERED BY PRIMARY TEACHERS ONLY**

Please rate your perception of the following statements in relation to last years' (2008-2009) primary class. Please use the scale of 1 to 5, with 1 being strongly disagree and 5 being strongly agree. Place a check mark or an "x" in the box that corresponds to your level or agreement.

Statement	Strongly Agree 1	2	3	4	Strongly Disagree 5
Expressive and receptive language abilities of last years' class were comparable to other classes I have taught.					
The younger students in my class were able to meet the curriculum outcomes that were reliant on language ability.					
The younger students in my class were able to meet the curriculum outcomes that were reliant on memory skills.					
The younger students in my class were able to meet the curriculum outcomes that were reliant on social skills.					
The dynamics of last years' classroom were different due to the age change, compared to other classes I have taught.					
Behavioural problems in last years' class were the same compared to previous classes I have taught.					
Issues related to maturity in last years' class were not any different compared to other classes I have taught.					

E. OPEN QUESTIONS

Please answer the following questions

1. What are the key characteristics that indicate to you that a child is ready to begin school?

2. Please comment on your perception of the change in cutoff date for entry.

3. How has this change impacted you?

4. Describe any accommodations you have had to make (preparation, content, etc.) to the needs of this larger age group.

5. How do you feel the cutoff change will impact students' overall performance?

6. Please describe the nature of preparation you have received at the board and provincial level to support the change in age of entry.

7. Please describe any planning or changes in practice that occurred within your school/district in response to the change in the cutoff date.

8. Any other comments?

Appendix B

- Participant Letter
- Letter to Superintendents

Participant Letter

Dear Participant,

I am a graduate student in the Master of Arts program in School Psychology in the Faculty of Education at Mount Saint Vincent University. As part of my Master's thesis, I am conducting research under the supervision of Dr. Frederick French. I am inviting you to participate in my study, Teachers' Perceptions of School Readiness Relative to Revised Nova Scotia Policy on Early School Entrance. The purpose of the study is to examine teachers' perceptions of students' cognitive, academic, social-emotional, behavioural, language abilities, and school readiness skills relative to the revised cutoff date for entry into primary. As well the study is attempting to learn more about your perceptions of any changes that have occurred in teachers' roles, how prepared teachers were for this transition, and if teachers perceive any curriculum changes that should be made to support this change.

This study involves the completion of a short questionnaire which should take no more than 30 minutes. You will be given one week (seven days) to complete the questionnaire at which time the researcher will return to collect it. Once you have completed the questionnaire please place it in the envelope provided, seal it, and return it to the central office at your school.

On the questionnaire you will be asked to fill out demographic information. This information is collected so comparison analysis can be conducted between selected responses and selected demographic information. Furthermore, you will be required to rate your level of agreement to given statements on a five point likert scale. The questionnaire also consists of the completion of open-ended questions where you may include any information you feel is important. If you have any questions during or after the completion of the questionnaire you may contact the researcher at any time through the contact information provided below. You will also have the opportunity to place your name and e-mail on a contact list which will enable you to receive a copy of the results when they become available. This will be on a separate sheet so there will not be a way to link your address with the questionnaire.

As a participant and teacher you will benefit from the study's findings as they are important to programming, curriculum, and professional development. This study also allows you to voice your opinions and concerns concerning the recent policy change and its effects. Your participation in the study is completely voluntary. You may withdraw from this study at any time without penalty.

Your anonymity is assured as there is no identifying information such as your name or your school's name on the questionnaire. Your name, if you choose, will be on the "contact for results" list. The only people who will have access to this list will be the researcher and thesis supervisor. Your answers on the questionnaire will remain confidential. Specific answers will not be published or presented in the thesis; however, themes that arise from all respondents will be presented in the thesis and further publications. No individual participants, schools or boards will be identified without their permission.

Should you wish to discuss the study or have any questions following the completion of the questionnaire, please call Ashley Boutilier at [REDACTED] or e-mail ashley.boutilier@msvu.ca or Dr. Frederick French at 902-457-6186 or e-mail Frederick.french@msvu.ca.

This research activity has met the ethical standards of the University Research Ethics Board at Mount Saint Vincent University. If you have any questions or concerns about this study and wish to speak with someone who is not directly involved with this study, you may contact the University Research Ethics Board, by phone at 902-457-6350 or by e-mail at research@msvu.ca

Sincerely,

Ashley Boutilier

Letter to Superintendent

Dear Superintendent,

My name is Ashley Boutilier and I am a graduate student in the Master of Arts program in School Psychology in the Faculty of Education at Mount Saint Vincent University. As part of my Master's thesis, I am conducting research under the supervision of Dr. Frederick French. I am asking for your permission to contact principals and with their permission have grade primary and grade one teachers in your board to participate in a study, Teacher's Perceptions of School Readiness Relative to Revised Nova Scotia Policy on Early School Entrance. The purpose of the study is to examine teacher's perceptions of student's cognitive, academic, social-emotional, behavioural, language abilities, and school readiness skills relative to changes in the cutoff date on primary entry. As well, the study is attempting to learn more about any changes that have occurred in teacher's roles, how prepared teacher's were for this transition, and if teacher's perceive any curriculum changes that should be made to support this change.

Principals will be asked to distribute questionnaires and return envelopes to the participating teachers in their schools. Principals will also be asked to hold a provided drop off box or envelope in the school's central office for teachers to return their completed questionnaires to. Participating teachers will be required to complete a short questionnaire taking approximately 30 minutes. The questionnaire will require teachers to fill out demographic information such as gender, total years teaching and level of obtained education. Comparison analysis will be conducted on a variety of factors such as gender, age, years teaching, teacher certification level, and teacher level of education. Furthermore, teachers will be required to rate their level of agreement to a variety of statements on a five point likert scale. Teachers will have one week to complete the questionnaire. At this time I will return to the school to pick up the completed questionnaires. If the return rate is low teachers will be given a letter encouraging them to complete the questionnaire if they have not done so. One final pick up will occur one week later. Teacher's responses are anonymous and therefore no specific comments made by teachers will be reported in the thesis or any subsequent publication.

The number of schools involved in the study will depend on the number of grade primary and one classes in each school. I am looking to sample 50 grade primary and 50 grade one teachers. Schools that have more than one of these classes would be ideal participants. Perspective schools include: Aldershot Elementary, Berwick & District School, Cambridge & District Elementary, Coldbrook & District, Dwight Ross School, Kings County Academy, Kingston District School, New Minas Elementary, Bridgetown Regional Elementary, Brooklyn District Elementary School, Windsor Elementary, and any others you can suggest.

Having your teachers participate in this study will benefit your school board as the study's findings will be relevant to programming, curriculum, and professional development. Examining teacher's perceptions in relation to numerous teacher characteristics will enable a better understanding of the group of teachers who are struggling or excelling with the new policy change. This study also allows teachers to voice their perceptions of the recent policy change and its effects. After the study has been completed the researcher will provide a summary to the participating boards and will be available to present on the findings of the study should the board wish.

Thank you for your time and consideration. Should you have any questions or require further information please contact the researcher, Ashley Boutilier at [REDACTED] Ashley.Boutilier@msvu.ca, or Dr. Frederick French at (902) 457-6186, Frederick.French@msvu.ca.

This research activity has met the ethical standards of the University Research Ethics Board at Mount Saint Vincent University. If you have any questions or concerns about this study and wish to speak with someone who is not directly involved with this study, you may contact the University Research Ethics Board, by phone at 902-457-6350 or by e-mail at research@msvu.ca

Sincerely,

Ashley Boutilier
Grad Student in Master of Arts in School Psychology Program
[REDACTED]
Ashley.Boutilier@msvu.ca