Grouping for Literacy Instruction in Kindergarten and Grade One: The Ecology of Teacher Perceptions and Classroom Practices

by

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A thesis submitted in conformity with the requirements for the degree of Doctor of Philosophy (PhD)  
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ABSTRACT

Grouping students based on ability has been a longstanding approach to addressing the challenges of instructing diverse student populations; nevertheless, ability grouping has remained a controversial practice, fueling decades-long debate among educational researchers and practitioners alike. Despite the lack of empirical consensus, a common theme emerging across literature is that the broader context of the instructional setting and processes may have more impact on student achievement than ability grouping per se.

In light of the mounting research that highlights the importance of literacy learning opportunities afforded to students in the early grades, this study sought to examine the practice of grouping for literacy instruction as an integral element of the encompassing classroom ecology, through in-depth mixed-methods analyses of thirteen primary classrooms across the Greater Toronto Area. The seven Kindergarten and six Grade One participating classrooms were viewed as multi-layered settings that impact students’ early literacy learning through a number of interacting micro-level factors (unique to each setting) shaped by overarching macrosystem influences (province-wide government-mandated policies and programs).
Situating teachers as the primary actors within the classroom microsystem, data on perceptions and practices were collected and anchored from the lens of the participating teachers. To observe and understand teachers’ implementation of student grouping structures, classroom data were collected using both qualitative and quantitative tools, and organized into three dynamic levels: structural/physical constructs; social/behavioural perceptions; and instructional/pedagogical practices.

Results, presented both as individual classroom case descriptions and as general group findings across classrooms, illustrate the variability of classroom-level practices in relation to relevant province-wide government policies. Using this methodology, this study highlights the importance of cautious extrapolations from large-scale studies across different classroom contexts and provides further support for using classroom case study in elucidating the importance of local elements and processes in our understanding of how government-mandated programs and policies are structured and implemented.
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CHAPTER 1: INTRODUCTION AND LITERATURE REVIEW

The practice of grouping students based on ability is common in many classrooms across Europe and North America (e.g., see meta-analyses by Hattie, 2009; Lou, Abrami, & Spence, 2000; Lou, et al., 1996; Ireson & Hallam, 1999); in fact according to Loveless (1998) "ability grouping for reading instruction appears nearly universal, especially in the early grades" (p.2). However, the use of ability groups has generated debate among academics and educators alike. While research dates back to the mid-1900s, the Canadian context – particularly the evolving early years’ policy landscape – has remained relatively underexplored. Furthermore, extant knowledge has been predominantly derived from large-scale data sets such as the U.S. National Early Childhood Longitudinal Study. While influential to date, such studies often isolate ability grouping as a discrete practice rather than one nested within the complex classroom ecology, and influenced by the teacher as a primary actor therein. Indeed as Bronfenbrenner’s spheres of influence suggest, the broader macro-level influences shaping teacher perceptions, and in turn classroom practices, merits equal consideration. In seeking to address these knowledge gaps, this study examines teacher perceptions and practices within the unique multi-layered ecology of 13 primary classrooms across the Greater Toronto Area.

1.1 What is Ability Grouping?

Across the past few decades, the term “ability grouping” has been associated with a number of different programs and policies, across different countries (e.g., U.K., U.S.), grade levels (elementary vs. secondary school), and even researchers’ definitions. Below is a list of the most commonly used terms and definitions collected across the relevant literature:

- **Within-class grouping**: “A teacher forms ability groups within a single classroom and provides each group with instruction appropriate to its level of aptitude.” (Kulik & Kulik,
Groups consist of same-ability students (homogenous groupings) or the teacher mixes ability levels (heterogeneous groupings) within-class (Ireson & Hallam, 2005). Within-class grouping is common in the elementary levels, particularly for reading and mathematics instruction. Groups tend to vary by subject, are often small (3-4 students), informal, and typically “assigned names, colors, or animals to differentiate them and to provide each group with a group identity” (Davidson, 2009).

- **Between-class or cross-grade ability grouping**: students are divided into separate classes, courses or curricular tracks based on achievement:
  - *Tracking or Streaming*: common in middle- and secondary-level schools, tracked students are grouped “between classes offering courses in academic subjects that reflect differences in students' prior learning” (Loveless, 1998, p. 5). “Originally, secondary school students were assigned to academic, general, or vocational tracks, with the courses within those tracks designed to prepare students for postsecondary education or careers. More recently, these track categories have been replaced by course levels, with students typically being assigned to advanced, honours, and regular, or basic courses” (Hallinan, 1994, p. 79). The British counterpart of tracking is called *streaming* and is considered “the norm in secondary schools” unless “a school can demonstrate that it is getting better than expected results through a different approach” (Department for Education and Employment, 1997).
  - *Setting or Subject-based Grouping*: Students in the same grade “are assigned to heterogeneous homeroom classes for part or most of the day, but are “regrouped” according to achievement level [often high, middle, and low groups] for one or more subjects. In the elementary grades, regrouping is often done for reading (and
occasionally mathematics)” (Slavin, 1986, p. 13). The *Joplin Plan* refers to subject-based grouping specifically for reading instruction.

- **Combined grades or multi-level or paired classes** “include children from two or more consecutive grades in one classroom, with one teacher.” According to the Ontario Ministry of Education, 21% of classes in the province fall within this category (The Literacy & Numeracy Secretariat, 2007). These types of classrooms are not typically labeled as ability-based groups as students are grouped based on age/school level. In this study, as common across the province, Junior (JKs: four-year olds) and Senior (SKs: five-year olds) Kindergarten students were found in the same classroom (with the exception of one of the seven Kindergarten classrooms which was SKs-only).

- **Non-graded Plan or multi-age model:** “This plan includes a variety of related grouping plans that place students in flexible groups according to performance rather than age. Thus, grade-level designations are eliminated. The curriculum for each subject is divided into levels through which students progress at their own rates” (Hollifield, 1987).

For the purposes of this study, ability grouping is used to refer to teachers’ use of *within-class* groups that are either homogenous (same-ability) or heterogeneous (mixed-ability) based on “achievement, skills or ability level” (McCoach, O’Connell, & Levitt, 2006, p. 339), “or even teacher evaluation” (Ansalone, 2003, p. 4) – the rationales for grouping by teachers participating in this study are explored under sub-Section 3.2.1. Furthermore, in this study, student grouping structures extend beyond those specifically referring to ability levels to also include whole-class and one-on-one instruction (independent activities are also considered as part of other instructional settings when examining literacy instruction content taught by teachers in sub-Section 3.2.4); clear distinctions are made throughout when reporting corresponding data.
1.2 The Grouping Debate

Grouping students based on ability has been a longstanding approach to addressing the challenges of instructing students with a “broad spectrum of abilities, interests, needs and goals” (Lou, Abrami, & Spence, 2000, p. 101) with multiple rationales. Breaking a classroom into smaller instructional units allows “teachers to adapt learning outcomes, instructional activities, and pace, to better meet students’ individual characteristics” (Chorzempa & Graham, 2006, p. 529); furthermore, it encourages interactions among students promoting subject mastery and social development such as close friendships (Hallinan & Sørensen, 1985). Moreover, studies based on the U.S. National Early Childhood Longitudinal Study (ECLS) – a nationally representative longitudinal study of a sample of 21,260 children who attended Kindergarten in 1998-99 with follow-up studies conducted when they reached Grades One, Three, Five and Eight – suggest that teachers’ use of ability groups in reading is “related positively to their students’ early literacy skills and reading growth from the fall to spring of their Kindergarten year” (McCoach, O’Connell, & Levitt, 2006, p. 344). Using the ECLS database, Hong, Corter, Hong, and Pelletier (2012) also found benefits of ability grouping for literacy growth, particularly for medium- and low-ability students, though these effects were moderated by time spent in groups. Furthermore, Lou et al.’s (1996, 2000) meta-analysis of homogenous (same ability) and heterogeneous (mixed ability) within-class grouping in classrooms ranging from Kindergarten to the postsecondary level, lends additional support to the notion that when learning in small groups, students of all ability levels show improvement in academic achievement in comparison to students grouped by whole class or one-on-one instruction1. As

1 In their 1996 study, Lou et al. found that: low-ability students performed best in heterogeneous groups, medium-ability students performed best in homogeneous groups, and high ability students performed equally well in either type of group.
Hattie (2009), concludes in his review, within-class grouping has a “slight advantage … compared to no grouping in promoting student learning” (p. 94).

However, despite some empirical support in the literature, ability grouping remains a divisive practice. Critics argue that grouping students by academic ability can in turn lead to segregation by race, ethnicity, and socioeconomic status, with minority and low-income students disproportionately found in lower ability groups (Buttaro, Catsambis, Mulkey, & Steelman, 2010; Tach & Farkas, 2006; Chorzempa & Graham, 2006; Flippo, 1999). Such concerns have even found their way into historical legal battles in the U.S. (e.g., *Hobson v. Hansen*, 1967; *People Who Care v. Rockford Board of Education School District*, 1994, as cited by Slavin, 1987 and Yettick, n.d.). Furthermore, other studies show that students in low ability groups experience comparatively poor instructional quality, often by inexperienced teachers, based on less demanding curricula focusing on low-level skills or non-instructional activities, and are excluded from learning opportunities resulting in low self-perceptions (Chorzempa & Graham, 2006; Kutnick, Sebba, Blatchford, Galton, & Thorp, 2005). As the *Facts on Education* Research and Publication series produced by the Canadian Education Association, in partnership with the Ontario Institute in Studies in Education (OISE/UT), argues, “research suggests that students in non-grouped settings, especially for those with lower achievement, have more healthy and positive attitudes towards school than students in grouped settings” (2010). Such inequitable educational outcomes would be particularly damaging in the early years when establishing strong educational foundations is essential to future academic success.

1.3 Rationale for Classroom Case Descriptions of Grouping in the Early Years

Research exploring the effects of ability-based grouping has typically examined student outcomes using large-scale datasets of nationally representative samples such as the U.S.
National Early Childhood Longitudinal Study (ECLS). While these studies are useful in painting a broad picture of grouping effects that rise above variations in other factors affecting learning, they have a number of limitations. For example, there are measurement concerns regarding standardized tests that fail to effectively evaluate variations amongst different groups, including ceiling effects for high-ability and gifted students (Allan, 1991); tests that are “too insensitive to pick up effects of grouping” (Slavin, 1990, p. 491); and tests that do not correspond to the differentiated approach or content taught by teachers across groups or ability levels. Furthermore, “large-scale survey data generally are inadequate for determining the best strategies for teacher interactions with students and curricular materials in either grouped or non-grouped settings” (Hong, Corter, Hong, & Pelletier, 2012, p. 84). As the decades-old debate over the potential effects of ability grouping on student achievement drag on, the need for rich classroom descriptions that explore varying classroom factors affecting such discrepancies has become more apparent.

Moreover, a central issue for this thesis and a major conceptual concern is that some researchers have attempted to “ask the ‘pure’ research question of whether grouping as a single isolated factor has any effect on student achievement” (Allan, 1991, p. 62). As Dreeben and Barr (1988) suggest however, whether students “do well or poorly depends on the quality of instruction, where quality refers to an appropriate combination of instructional conditions and not the mere facts of low group aptitude and rank” (p. 56). However, “most of the studies on grouping do not describe at all the nature of the instruction that occurred in the study” (Grossen, 1996, p. 4), thereby ignoring the multitude of factors that may directly or indirectly impact achievement – including variables influencing the choice of instructional strategies, as well as the learning influences of the interactions and experiences of the children in the classroom.
(Hong, Corter, Hong, & Pelletier, 2012; Slavin, 1987). As Chorzempa and Graham (2006) summarize, “currently, little is known about the factors that predict teachers’ use of within-class ability grouping” and “there is little contemporary data on what, if any, differences exist in the instruction received by students in different ability groups” (p.530).

Lastly, while ability grouping has been a popular domain of research in the U.S. and U.K. for over 50 years, there are few if any studies within the context of Canadian classrooms, particularly at the elementary level. This is a different story from that of secondary school students where there is evidence that educational tracking² continues to exist to this day. For example, a recent report based on data from the Toronto District School Board’s Grade 7 to 12 student census (2006-2011 cohort) found that Black students were over twice as likely to be enrolled in the “Applied” (College Preparedness) track, and three times as likely to be in the “Locally Developed/Essentials” track (no direct entry to either college or university after graduation) compared to other student populations (James & Turner, 2017). This is particularly alarming – and received media coverage by the Canadian Broadcasting Corporation (Draaisma, 2017) – as the practice of educational tracking at the secondary school level allegedly concluded in 1999 when the Ontario Ministry of Education “officially announced the abolition of streaming – by replacing a triple-tiered secondary system in which students could take courses at the Advanced, Intermediate, or Basic level, with a multi-tiered secondary system” (Parekh, Flessa, & Smaller, 2016, p. 70). Unfortunately the TDSB does not currently collect comparable

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² “‘Academic’ courses are the most academically challenging and are required for University Preparedness courses taken in Grades 11 and 12. This program of study is required if the student intends to apply to university. ‘Applied’ courses prepare students for College Preparedness courses in Grades 11 and 12 and to enter college after high school. The ‘Locally Developed/Essentials’ program of study provides students with flexibility and support in meeting compulsory credit requirements. It helps students meet their educational needs if they are not working at grade level. The program also prepares students to leave high school and secure a job. Students who graduate from an Essentials program of study are unable to go directly to college or university.’” (James & Turner, 2017, p.29)
student census data for elementary or middle school students; however, participants noted that “low expectations” by elementary and middle school teachers meant that “many Black students tended to be emotionally and academically unprepared for Academic courses when they entered high school” (p. 42). This lends support to the statement by the Organization for Economic Co-Operation and Development (2012), which summarizes that:

“The existence of lower level tracks and streams fuels a vicious cycle in the expectations of teachers and students. Teachers can have lower expectations for some students, especially disadvantaged and/or low performing ones, and assign them slower-paced and more fragmented instruction; and students adjust their expectations and efforts, which results in even lower performance” (p. 58).

With immigration expected to become “Canada’s only source of population growth” in less than 15 years (Statistics Canada, 2008), schools and teachers will more than ever, have to face the increasing challenges of classrooms where students not only differ in academic skills and needs, but also in linguistic, cultural, and socio-economic backgrounds. While tracking may not be an issue in the early grades, immigration does mean that issues and pitfalls on ethics and effectiveness of grouping come into focus in diverse early grade classrooms. Ability grouping is hence an important and relevant topic of consideration for both policy and effective practice within the context of Canadian primary classrooms.

This thesis builds on Phase 1 of Dr. Guanglei Hong’s study, “Effects of Within-Class Homogenous Ability Grouping in Early Reading Instruction”, which sought to examine grouping in Kindergarten through the secondary analysis of the U.S. Early Childhood Longitudinal Study (ECLS) dataset; results were published in 2009 (Hong & Hong) and 2012
(Hong, Corter, Hong, & Pelletier). This complementary thesis study, funded as part of the larger study, was designed to provide Canadian context by exploring how teachers reach their decisions about grouping and instructional variations they may implement around various grouping structures. Accordingly, the study collected and analyzed in-depth qualitative and quantitative data from a sample of classrooms in the Greater Toronto Area, the most populous city in Canada and “one of the most multicultural and diverse cities in the world” (Parekh, Flessa, & Smaller, 2016, p. 67). Another aim of the study was to consider whether findings from large-scale studies, such as those employing the ECLS database, can reflect classroom-level realities. The classroom cases were informed by the narratives of seven Kindergarten and six Grade One teachers, through daily logs, interviews, classroom observations, and checklists. Data collection for the study was completed by a team of teacher candidates enrolled in the Ontario Institute for Studies in Education’s (OISE/UT) Master of Arts in Child Study program. The author served as Research Manager and took part in each aspect of the study including study design, school recruitment, pilot testing of all tools and measures, and data collection. For this thesis study, the author carried out all data management and analyses.

1.4 The Ontario Educational Context

1.4.1 Governance: Ontario Ministry of Education & District School Boards.

In Canada, all legislation with respect to education falls exclusively under the authority of provincial jurisdictions (The Constitution Acts 1867 to 1982 - Section 93, Education); this means that “there is no federal department of education and no integrated national system of education” and hence each of the country’s 13 jurisdictions (10 provinces, 3 territories) “are responsible for the organization, delivery, and assessment of education at the elementary and secondary levels” for their constituents (Council of Ministers of Education, Canada).
In the province of Ontario, which accounts for nearly 40% of Canada’s total population (Ontario Ministry of Finance, 2017), education is governed by the *Education Act* and its regulations. This legislation outlines the roles and responsibilities of all key partners in the education system, including the Minister of Education, school boards, teachers, parents/guardians and students (Education Act, R.S.O. 1990, c. E.2).

Per subsection 21(1) of the *Education Act*, all Ontario children and youth ages 6 to 18 are required to enroll in formal education programs within the province’s public or private school systems. Parents/caregivers of persons under 16 have the legal responsibility to ensure they attend school or that they receive “satisfactory instruction at home or elsewhere” – e.g., per Policy/Program Memorandum No. 131: Home Schooling (Ontario Ministry of Education, 2012).

The publicly-funded elementary and secondary school systems across the province are administered by the Ontario Ministry of Education, which oversees statutes and regulations that concern the education of 1,993,422 students enrolled across the province’s 4,891 schools (Ontario Ministry of Education, 2017). Led by the Minister of Education, an elected member of the legislature appointed to the position by the provincial government leader, the Ministry of Education is responsible for (as relevant to this study): developing province-wide curriculum and lists of approved learning materials including textbooks, setting guidelines for school board officials, and for promoting and supporting teaching excellence (Ontario Education Services Corporation, 2014; Ontario Ministry of Education, 2009).

The majority of publicly-funded schools in Ontario belong to one of the province’s 72 district school boards that in turn fall under one of the types of school boards outlined in the *Education Act*, Part 11.2:
• 31: English-language public boards – open to all students residing in Ontario
• 29: English-language Catholic/separate boards – in the primary grades, open to students who have been baptized as Roman Catholic or who have Roman Catholic parents (exceptions may be possible given each board’s specific requirements)
• 4: French-language public boards open to students whose parents are “French-language rights holders”
• 8: French-language Catholic/separate boards
• 10: school authorities; these schools are either managed through hospitals and treatments centers (6), or are located in remote/geographically isolated regions (4).

All seven participating schools in this study belonged to English-language boards (6 to one English-language public board, and 1 to an English-language Catholic/separate board). According to the Ontario Ministry of Education, each school board is responsible for (as relevant to this study): “building, equipping and furnishing” its schools, “providing education programs that meet the needs of the school community”, hiring and supporting teachers and other staff, and approving learning materials per the Ministry’s approved list (Ontario Ministry of Education, 2009). “By moving key decision-making to the Ontario Ministry of Education and away from school-district leadership in the realms of in-school finance, school curriculum, standardized testing, primary class size, and academic priorities, for example, policymakers have emphasized centralized mandates to common problems”; however “it would be an oversimplification to say that school districts in Ontario operate in uniformly ‘tightly-coupled’ systems of command and control. Although many goals are set centrally, the path to achieving those goals is not prescribed” (Parekh, Flessa, & Smaller, 2016, p. 69).
1.4.2 The Kindergarten Program & The Ontario Elementary Curriculum.

In Ontario, Kindergarten attendance is optional and spans two years with Junior and Senior Kindergarten for four- and five-year-olds, respectively. According to the 2014 Early Childhood Education Report, 90% of the province’s five-year olds attend Kindergarten (Akbari & McCuaig, 2014). In September 2006, The Kindergarten Program (Revised, 2006) replaced The Kindergarten Program, 1998. The 2006 version of the Program was in effect at the time of data collection for this study. The goals of The Kindergarten Program were to: “establish a strong foundation for the early years by providing young children with an integrated day of learning; provide a play-based learning environment; help children make a smoother transition to Grade 1; and improve children’s prospects for success in school and in their lives beyond school” (Ontario Ministry of Education, 2011, p. 20). In the 2006 program, learning expectations were outlined for six areas of learning – Personal and Social Development, Language, Mathematics, Science and Technology, Health and Physical Activity, and The Arts – using two sets of curriculum expectations:

“The overall expectations describe in general terms the knowledge and skills that students are expected to demonstrate by the end of each grade or course. The specific expectations describe the expected knowledge and skills in greater detail. Taken together, the overall and specific expectations represent the mandated curriculum – the content standards” (Ontario Ministry of Education, 2010, p. 16).

The overall expectations for literacy learning in Kindergarten included the ability to: “communicate by talking and by listening and speaking to others for a variety of purposes and in a variety of contexts; demonstrate understanding and critical awareness of a variety of written
materials that are read by and with the teacher; use reading strategies that are appropriate for beginning readers in order to make sense of a variety of written materials; communicate in writing, using strategies that are appropriate for beginners; and, demonstrate a beginning understanding and critical awareness of media texts” (2006, p. 35). In terms of grouping, The Kindergarten Program (Revised, 2006) advised teachers to “plan whole-class instruction, small-group learning, independent learning, and activities at learning centres” (p. 3) and to address the various interests and needs of the student population within their zone of proximal development. An example provided of an instructional strategy using small student groups was guided reading³.

In 2014, after data collection was completed for this study, Ontario became Canada’s first province to implement full-day kindergarten (FDK) for over 250,000 four- and five-year-olds. This followed the release of the 2009 report, With Our Best Future in Mind: Implementing Early Learning in Ontario by Dr. Charles Pascal (Pascal, 2009), who had been tasked by then Premier Dalton McGuinty to produce an empirically-based report on how to effectively implement FDK across the province. The report led to the introduction of FDK beginning in September 2010, which was phased in across the province over a five-year period. To accompany this change, the Ministry released The Full-Day Early Learning–Kindergarten Program (Draft Version, 2010-11), which was subsequently replaced by The Kindergarten Program (2016). This 330-page program is organized around four frames: Belonging and Contributing, Self-Regulation and

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³ Guided reading, is “an instructional strategy in which the teacher works with a small group of children (1–3 in Kindergarten) who have comparable reading skills. The teacher selects an appropriate text (one that children can read with 90–95 per cent accuracy), reviews it with the lesson and the reading levels/skills of the group members in mind, and introduces it to the group in a manner appropriate to their skills. Children then read the book quietly, but aloud, while the teacher offers support as necessary. The composition of a guided reading group changes as a result of the teacher’s observation and assessment of individuals in it. When children understand print concepts, know letters and sounds, and can recognize some sight words, they are ready to participate in guided reading (The Kindergarten Program (Revised), 2006, pp. 17, 64).
Well-Being, Demonstrating Literacy and Mathematics Behaviours, and Problem Solving and Innovating. All classrooms participating in this study operated using *The Kindergarten Program* (Revised, 2006) and were half-day Kindergarten classrooms.

Unlike Kindergarten, Grade One attendance is mandatory in Ontario, and *The Ontario Curriculum, Grades 1-8, Language* (2006) curriculum document has not been updated since the data collection period for this study. This document, as relevant for Grade One language instruction, is organized by four strands – Oral Communication, Reading, Writing, and Media Literacy. Each strand has its own series of *overall* and *specific expectations*. In terms of grouping, the *Language* curriculum document advises that “Grade One students should have access to …. large- and small-group discussions, and one-on-one conversations” (p.33). Specific expectations provide a number of examples for the use of small groups including: to exchange ideas or share findings with a peer; exchange information that will contribute to understanding in large groups; and learn and practice interactive and collaborative practices (e.g., giving others the opportunity to speak).

### 1.4.3 Teacher education and training.

“On a daily and hourly basis, teachers make professional judgments that ensure effective implementation of [the seven fundamental] principles [of assessment, evaluation, and reporting]⁴, making decisions with

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⁴ Ontario Ministry of Education, 2010 (p. 6): The Seven Fundamental Principles of assessment, evaluation, and reporting include teacher practices and procedures that: are fair, transparent, and equitable for all students; support all students, including those with special education needs, those who are learning the language of instruction (English or French), and those who are First Nation, Métis, or Inuit; are carefully planned to relate to the curriculum expectations and learning goals and, as much as possible, to the interests, learning styles and preferences, needs, and experiences of all students; are communicated clearly to students and parents at the beginning of the school year or course and at other appropriate points throughout the school year or course; are ongoing, varied in nature, and administered over a period of time to provide multiple opportunities for students to demonstrate the full range of their learning; provide ongoing descriptive feedback that is clear, specific, meaningful, and timely to support improved learning and achievement; develop students’ self-assessment skills to enable them to assess their own learning, set specific goals, and plan next steps for their learning.
respect to individual students and groups of students that have profound implications for them. How students feel about themselves as learners and whether they enjoy learning and strive for excellence are closely related to their teachers’ professional skills both in differentiating instruction and assessment and in helping students understand how they can improve. Teachers create environments in which all students feel valued and confident and have the courage to take risks and make mistakes” (Ontario Ministry of Education, 2010, p. 7).

Given the essential role of teachers in student learning – ranging from how their classroom environment is physically organized to the specifics of the instructional time and content – data were collected and anchored from the lens of the participating teachers.

1.4.3.1 Enhanced Teacher Education Program.

In 1997, the Ontario College of Teachers was established to govern and regulate the teaching profession in Ontario’s publicly-funded schools. Teacher education requirements are mandated by the College through the Ontario College of Teachers Act. Ontario certified teachers are typically qualified to teach in two consecutive divisions, which include: Primary (Kindergarten to Grade 3), Junior (Grades 4–6), Intermediate (Grades 7–10), and Senior (Grades 11–12) (Ontario College of Teachers, 2017). In this study, all participating teachers were qualified to teach in the Primary/Junior division.

Prior to 2015, the framework for undergraduate teacher education programs across the province had remained essentially unchanged since the 1970s (Government of Ontario, 2013). Therefore, participating teachers in this study completed teacher education programs that reflect
these longstanding requirements, including a postsecondary undergraduate degree (in any field) consisting of at least three years of full-time studies, and a one-year initial teacher education/pre-service/Bachelor of Education program administered by one of the province’s accredited Faculties of Education. However, prior to 2015 many teachers had also earned advanced degrees in education, such as a Master’s degree.

On June 5, 2013, the Government of Ontario, in partnership with the Ontario College of Teachers, announced plans to modernize Ontario’s teacher education programs by implementing a number of significant changes (Government of Ontario, 2013). Starting on September 1, 2015, these amended certification requirements went into effect, thereby replacing the one-year program of professional education with a four-semester program that includes increased practicum days (from a minimum of 40 days to a minimum of 80 days or 400 hours) and greater focus in areas of diversity, mental health and addictions, and technology integration in classrooms (Government of Ontario, 2014). According to the Ontario College of Teachers (2016, p. 1), 50% of Ontario’s enhanced teacher education programs now consists of training in “areas of education to support methodology coursework, such as classroom management, how to use research data and new technology, supporting students with special learning needs and those from diverse communities.”

In addition to doubling the program length and the various content enhancements, the province announced a reduction in program admissions by 50% starting in 2015 – this was in response to historical figures that showed approximately 9,000 teachers graduating annually from Ontario, while only 6,000 were needed to fill the province’s vacancies (Government of Ontario, 2013). These amendments translated to changes across all 16 Ontario Faculties of Education. In the case of the University of Toronto, the Ontario Institute for Studies in
Education (OISE/UT) opted to eliminate its undergraduate Bachelor of Education program entirely in favour of its already-established two-year Master of Teaching, and Master of Arts in Child Study and Education degrees (Bradshaw, 2014). The research team involved in the data collection phase of this study were all graduate student candidates enrolled in OISE/UT’s two-year teacher education Master’s program in Child Study and Education, making their training equivalent in length to the mandated enhanced teacher education program, implemented province-wide as of September 2015.

1.4.3.2 The New Teacher Induction Program (NTIP).

In accordance with the Education Act, Part X.0.1., and starting with the 2006-2007 school year, newly certified teachers who have been hired into a permanent position (full- or part-time) by a school board or school authority, are required to complete the New Teacher Induction Program (NTIP). This program “provides another full year of professional support so that new teachers can develop the requisite skills and knowledge that will enable them to achieve success as experienced teachers in Ontario” and comprises the following elements (Government of Ontario, 2010, p. 3):

- orientation for all new teachers to the school and school board;
- mentoring for new teachers by experienced teachers; and,
- professional development and training appropriate for new teachers.

All publicly-funded school boards in Ontario are mandated to provide NTIP to their new teachers. However NTIP is a “school-based program” and hence it is the responsibility of the school principal to “work with the new teacher and his or her mentor to determine the content and method of delivery of each element specific to the new teacher’s needs” (Government of Ontario, 2010, p. 8). At the time of data collection (2007-2008 academic school year), all 13
participating teachers in this study had reported at least 4 years of teaching experience; therefore the requirement to complete the NTIP program did not apply to any of these teachers.

1.4.3.3 Additional Qualifications (AQs): Extending teachers’ professional knowledge.

Ontario teachers are encouraged to participate in ongoing professional development throughout their career; one way to do so is by completing Additional Qualifications (AQs). AQs extend beyond the Additional Basic Qualifications (ABQs), which refer to qualifications in a division (Primary/Junior/Intermediate/Senior) or subject required for certification. AQs are administered by the Ontario College of Teachers, governed by O. Reg. 176/10: Teachers’ Qualifications (Part III), and allow teachers to “expand their knowledge and skills within the divisions and subjects in which they are already qualified or to acquire knowledge in a new subject or area of teaching. Specialist and honour specialist courses allow teachers to focus on leadership and curriculum development” (Ontario College of Teachers, 2016, p. 3).

1.4.3.4 Full-Day Kindergarten Program: Blended staffing model.

A critical component of the FDK program implemented province-wide as of September 2014, is the blended staffing model of Kindergarten teachers (certified by the Ontario College of Teachers) and early childhood educators (ECEs, registered with the College of Early Childhood Educators established in 2008) sharing the responsibilities of planning and implementing the program. If children enter Kindergarten at the Junior level (four-year-olds), they will typically stay with the same educator team for their following Senior Kindergarten year. According to Pascal (2009), “educator teams have been found to add to the strengths of the professional preparation and skill sets of both teachers and ECEs. Children benefit and staff satisfaction is enhanced” (p.33). The Ontario Ministry of Education further states that Kindergarten teachers and ECEs “have complementary skills that create a learning environment to support the unique
needs of each child. With two qualified professionals in the classroom for the full school day, there is more time for individual and small group instruction” (2010). In the current study, the role of additional adults in promoting small group instruction in both Kindergarten and Grade One is examined.

1.5 Theoretical Framework

1.5.1 Bronfenbrenner spheres of influence.

Urie Bronfenbrenner introduced his ecological systems theory in the 1970s, arguing that “in order to understand human development, one must consider the entire ecological system in which growth occurs”. He went on to describe this system as encompassing “five socially organized subsystems that help support and guide human growth” (1994, p. 1643), starting with the most immediate subsystem which comprises the individual’s immediate surroundings (e.g., home, school) and relationships (e.g., with family, teachers, classmates), called the microsystem. The mesosystem then describes the direct interactions between the different elements of the individual’s various microsystems (e.g., the relationship between parents and teachers). While the third subsystem does not involve the individual as an active participant, the exosystem nonetheless indirectly influences his/her development (e.g., parents’ work environment). The most remote subsystem, the macrosystem, encompasses the cultural and societal beliefs in which the individual resides (e.g., political systems). The fifth and final subsystem, chronosystem, was added later to describe the dimension of time, and more specifically changes to, or consistency in, individual characteristics or environmental events (e.g., life transitions, changes to family structures).

Furthermore, according to Bronfenbrenner (1994), reading and group play are examples of proximal processes or long-term, reciprocal forms of interaction in a child’s immediate
environment (p. 1644); moreover, “most of the relevant studies of proximal processes have focused on the family, with all too few dealing with other key developmental settings, such as classrooms and schools” (p. 1646). Bronfenbrenner further theorized “the necessity of going beyond the simple labels of class and culture to identify more specific social and psychological features of the macrosystem level that ultimately affect the particular conditions and processes occurring in the microsystem” (p. 1646). With classrooms as this study’s focus in the ecology of children’s literacy learning and with teachers reporting on both classroom practices and influences on practice from beyond the classroom, the microsystem and macrosystem spheres of influence were of particular interest as described in sub-Section 1.5.2.

1.5.2 The ecology of classroom systems.

The classroom as a dynamic system can be framed partly in terms of Bronfenbrenner’s social ecology theory. According to Bronfenbrenner (1976), the ecological structure of the learning environment is a “nested arrangement of structures, each contained within the next” (p.5). This framework comprises a multitude of factors that can influence student learning within a classroom, including physical layout, instructional quality, teacher characteristics, and student factors (Rimm-Kaufman, La Para, Downer, & Pianta, 2005). Furthermore, as the dynamic systems framework elaborates, these factors or subsystems interact with each other as well as with other aspects of the learning environment – e.g., teacher background, instructional dosage and content – to ultimately influence student learning and achievement. (e.g., Yoshikawa & Hsueh, 2001). For example, in their study of 315 third grade students, Connor et al. (2014) utilized the dynamic systems framework to examine participating classrooms using two observation systems – the first assessed instruction at an individual level, considering factors such as literacy content, context, and the role of the teacher and the student in learning. The
second system attempted to assess the overall quality of the classroom from a more global level, considering factors such as classroom organization, teacher warmth and responsiveness, and teacher support for vocabulary and language development. They found that “both the global quality of the learning environment and time individual students spent in specific types of literacy instruction, covering specific content, interacted to predict students’ comprehension and vocabulary gains whereas neither system did alone” (p.762).

In this study, I classify the various elements observed in each participating classroom based on terminology used by Bronfenbrenner to describe the ecological structure of the educational environment (1976), arguing that factors considered by Connor et al. (2014) – namely, classroom organization, the teacher’s role and characteristics, as well as the literacy content and context – encompass the elements which make up the unique microsystem that is each classroom setting. In accordance with this terminology, this “immediate setting containing the learner” (p. 5) is itself a “concrete manifestation” of the “overarching institutions of the culture or subculture” macrosystem (p. 6), including educational systems. However, as Yoshikawa and Hsueh (2001) assert, “the nature of change processes in the many systems intervening between the macro and individual levels has been underexplored, as has the issue of how such processes mediate effects of policy on development” (p.1888). Given that teachers are responsible for making decisions about these “nested contexts for instruction and learning” (Baines, Blatchford, & Kutnick, 2003, p. 10), macro-level government-mandated policies and programs such as curriculum expectations and teacher training are particularly important in setting the context. Therefore, this study focuses on two of the Bronfenbrenner's spheres of influence: microsystem (classroom-specific factors, organized into three levels as described
below in sub-Section 1.5.3.) and the encompassing macrosystem influences (province-wide policies and programs as described earlier in Section 1.4).

1.5.3 Organizational perspective.

In order to structure the various unique elements and practices encompassing each classroom microsystem, I reference Buttaro, Catsambis, Mulkey, and Steelman’s (2010) “organizational approach.” In their study of the relation between racial segregation and the use of ability grouping in reading instruction based on the U.S. National Early Childhood Longitudinal Study – Kindergarten Cohort (ECLS-K), the authors introduced a threefold organizational perspective previously employed by secondary school researchers. Based on this framework, the formation and utilization of within-class instructional practices such as ability grouping, are outcomes of factors at numerous higher levels. For this study, I adapted this model to organize data collected from each classroom microsystem into the following dynamic levels:

Structural/physical constructs: observations of the classroom’s physical layout (structural and spatial organization), as well as the availability of various literacy learning materials and resources. According to the Ontario Ministry of Education (2003):

“The physical layout of a classroom can support learning. When teachers carefully plan and set up the classroom, the space reflects their professional understanding of how children learn. … A classroom should be full of materials that promote literacy – books on display, student work on the walls, environmental print, charts, and so on. Teachers should think about the best ways to incorporate such materials within the room to support literacy instruction and practice” (p. 395, 13.8).
Furthermore, teachers were asked to report on the presence of additional adults during their daily literacy instruction time. Buttaro et al. (2010) suggested that student grouping may be more prevalent in larger classrooms with limited resources and high variability in student skills where it would facilitate classroom management. Furthermore, the size and number of groups may be influenced by factors such as the availability of instructional materials and additional teacher aides/classroom volunteers required to attend to all groups.

Social/behavioural perceptions: teacher-perceived effects of grouping on student outcomes, and their beliefs about, and previous experiences with, grouping. This level was an adaptation of what Buttaro et al. referred to as the cultural organizational level: “the norms, values, and ideas that are brought into the school by its constituents” (p. 1311), including assumptions of what constitutes merit (e.g., academic achievement vs. social maturity), and the instructional practices considered appropriate based on desired skills and curricula content (e.g., teacher views of how to best instruct students in their classroom based on student background or ability level). In their study of 222 US Grade One teachers, Chorzempa and Graham (2006) found that more than two thirds (68%) of the teachers cited meeting student instructional needs as their main reason for using ability groups. Furthermore, they found that teacher factors, especially beliefs about ability grouping and years of teaching, were strong predictors (75% accuracy) of teachers’ use of such groupings. The authors speculated that more experienced teachers may be less likely to use grouping because “they are more adept at applying other instructional arrangements to meet students’ needs,” while less experienced teachers “may have had fewer opportunities to be exposed to concerns about ability grouping” (p.539). In terms of teacher perceptions of student behaviour and self-esteem in regards to ability grouping, Ireson and Hallam (2005) summarize:
“Ethnographic research and case studies indicate that students in the lower streams or tracks are viewed in a more negative light and have less positive relationships with their teachers and with one another (Hargreaves, 1967; Oakes, 1985; Schwartz, 1981). Those in top streams are seen as bright, hard-working, and interested, while those in low streams are seen as lacking ability, lazy, and poorly behaved (Ball, 1981). … Ability grouping may also impact on pupils’ self-esteem, although here the evidence is equivocal” (p. 299).

The third level, instructional/pedagogical practices, is a complete departure from Buttaro et al.’s model. In their study, political influences (which would fall under Bronfenbrenner’s macrosystem sphere of influence) encompassed accountability and pre-determined standards as well as the need to respond to school and community “clientele.” For example, the authors suggested that grouping students by ability may be used by schools to maximize student performance in order to secure additional resources. Furthermore, they hypothesized that “elite parents” whose children are most often found in high-ability groups, may use their political power to provide additional support for grouping. Given Grossen’s (1996) assertion that “most of the studies on grouping do not describe at all the nature of the instruction that occurred in the study,” for this thesis, I attempt to shed light on the nature of classroom instruction – namely, instructional dosage and literacy content – devised by each participating teacher, depending on the student grouping structure utilized for learning. According to the Ontario Ministry of Education (2003):

“Kindergarten timetables include a significant block of time for literacy-related activities. Ideally, 45–60 minutes daily is recommended for half-day classes and 90–120 minutes for full-day classes. … Timetabling
requirements change with the maturity and ability of students” (p.400, 13.13).

With the absence of clear Ministry-recommended guidelines on how long students should spend in groups (per The Kindergarten Program (Revised, 2006) and The Ontario Curriculum, Grades 1-8, Language (2006) curriculum documents), it was hypothesized that a varied range would be observed across the participating classrooms.

Figure 1. Theoretical Framework. The instructional practice of grouping students based on ability (homogenous/same-ability groups; and/or heterogeneous/mixed-ability groups) for literacy instruction was explored from a dynamic systems perspective (Bronfenbrenner’s social ecology theory, 1976, 1994), supplemented by a threefold organizational approach (adapted from Buttaro et al., 2010). The influences of macrosystem educational policies and programs were considered given the unique classroom ecology of the seven Kindergarten and six Grade One classroom cases. Microsystem elements and processes were organized into interacting structural/physical constructs, social/behavioural perceptions, and instructional/pedagogical practices. All data were anchored from the lens of participating teachers.
1.6 Research Approach and Questions

In light of the mounting research that highlights the importance of classroom literacy instruction and learning opportunities afforded to students in the early grades (e.g., National Reading Panel, 2000), this study sought to delve into the “black box of classroom instruction” (Connor, et al., 2014, p. 763) by examining 13 classrooms across the Greater Toronto Area. To achieve this, the ecology of each of the participating seven Kindergarten and six Grade One classrooms was viewed as a complex multi-layered system that impacts students’ early literacy learning through a multitude of interacting micro-level elements and processes (unique to each setting) and macro-level influences (province-wide government-mandated policies and programs). To frame the various micro-level elements of each classroom setting, an organizational approach was adapted to examine the practice of ability grouping as an integral element of the literacy instructional system utilized by each teacher. Qualitative and quantitative tools were employed to collect data from each of these organizational levels, including structural/physical constructs (classroom physical layout and literacy environment, availability of resources and support personnel), social/behavioural perceptions (teacher-perceived effects of grouping on student outcomes, beliefs and previous experiences with grouping), and instructional/pedagogical (literacy instruction dosage and content) practices. Furthermore, given the “pervasive assumption that teachers should operate with high autonomy, and the corresponding implication that instructional practice rarely be open to public inspection” – what Raudenbush (2009) has coined “privatized idiosyncratic practice” (p.172) – this study provides a unique window into participating classrooms from the lens of each teacher, anchoring all data from their perspective.
Research questions framing this study include:

*Grouping for literacy instruction* – were homogenous and/or heterogeneous ability groups part of the grouping strategy reported in participating classrooms? If so, why did teachers opt for ability-grouping?

1. **Grouping Frequency**: What types of student grouping (whole class, one-on-one, homogenous and heterogeneous ability groups) did Kindergarten and Grade One teachers report using for literacy instruction?

2. **Why Group Students?**: What were the major factors influencing the formation and utilization of ability-based groups for literacy instruction according to Kindergarten and Grade One teachers?

**Structural/physical constructs**

3. **Classroom Literacy Environment**: How were Kindergarten and Grade One classrooms designed and organized to support literacy learning?

4. **Presence of Additional Adults**: Did teachers note the presence of additional adults during literacy instruction in their classroom? How did teachers perceive the effects of these adults on the literacy environment?

**Social/behavioural perceptions**

5. **Teacher-Perceived Effects of Grouping on Student Outcomes**: Did Kindergarten and Grade One teachers perceive that students’ classroom behaviours and self-esteem were affected by their placement in a particular grouping structure?

6. **Grouping Flexibility**: Under what circumstances would teachers move students from one group to another?
**Instructional/pedagogical practices**

7. **Literacy Instruction Dosage:** On average, how much time did teachers devote specifically to literacy instruction per day? How did this time compare to the overall general instruction time reported?

8. How was time devoted to literacy instruction distributed between different grouping structures when they were used by participating teachers?

9. What were the major literacy content elements taught in Kindergarten and Grade One according to grouping type reportedly used by participating teachers?
CHAPTER 2: METHODOLOGY

This chapter provides a description of the study’s overall design, sampling approach, participant characteristics, data collection protocols and measures, as well as data management and analysis techniques.

2.1 Study Design

Given the complex contextual issues inherent in classrooms, I employed multiple classroom case descriptions combining “elements of qualitative and quantitative research approaches for the broad purposes of breadth and depth of understanding and corroboration” (Johnson, Onwuegbuzie, & Turner, 2007, p. 123). Qualitative case analysis was included for its capacity to provide in-depth understanding of the thirteen participating classrooms (McMillan & Werger, 2002; Stake, 2000) and more specifically for its proven ability to “reveal much about teachers’ understanding and the evolution of instructional practices” (Stecher & Borko, 2002, p. 3). Quantitative measures were used for efficient description of the timing and frequency of observable, multi-dimensional teaching practices. Case study is credited with the capacity to produce concrete, real-life, and context-dependent knowledge, which is well suited to the social sciences (Flyvbjerg, 2011). Furthermore, although quantitative statistical analyses of large samples are often viewed preferably for their generalizability, the transferability of case studies is often overlooked. While individual cases may be unique, the knowledge generated from case studies can be applied to other situations. As Gilgun (2011) explains “each case is unique, just as each person and each situation are unique. What is not unique are the concepts and ideas that we draw from case studies. These concepts and ideas are generalizable” (p.2). Furthermore, researchers may apply findings from case studies to “suggest further questions, hypotheses, and future implications’ and present the results as ‘directions and questions’” for future studies (Lauer & Asher, 1988, p.32 as cited by Barnes et al., 2012).
As Flyvbjerg (2011) summarizes:

“The main strength of the case study is depth - detail, richness, completeness, and within-case variance - whereas for statistical methods it is breadth. If you want to understand a phenomenon in any degree of thoroughness … what causes it, how to prevent it, and so on, you need to do case studies” (p. 314).

Yin (2005) further highlights the importance of case studies in the field of education:

“…. statistics is not what education is really about. Starting to understand the world of education means bringing to life what goes on in classrooms and in schools and how both are connected to a broader panoply of real-life school districts, state agencies, communities – and educational controversy. Case studies eminently fill this need” (p. xiv).

Further to the multiple measures design of this project, where possible, data were triangulated “as a means of mutual confirmation of measures and validation of findings” (Berg, 2001, p. 5). A variety of data were collected from each classroom using both quantitative (teacher instructional logs, checklist of the classroom literacy environment) and qualitative (teacher interviews, running records of classroom observations) tools. As Jick (1979) notes, “triangulation may be used not only to examine the same phenomenon from multiple perspectives but also to enrich our understanding by allowing for new or deeper dimensions to emerge” (p.603).

The data collection phase for this study began in mid-November 2007 and concluded at the end of April 2008. Data from each classroom were collected in both the Fall (November/December) and Spring (April/May) periods of the same school year.
two time points – early in the instructional year and towards the end – was intended to capture systematic changes in instruction, such as the one found by previous Canadian research (Corter & Park, 1993) that showed Kindergarten programs move from more play-based to skills instruction as the year progresses. As all Kindergarten classes were operated based on a half-day schedule, Kindergarten teachers reported instructional activities for their morning classes only, while Grade One teachers reported whole-day accounts.

Throughout this thesis, when reporting data, the words “mean” (M) and “average” are used interchangeably. Furthermore, these values were calculated based on all reported applicable data for corresponding teachers – for example: mean/average usage frequency for same-ability groups would be reported for all Kindergarten teachers across the observation days, even if some did not use this student grouping type throughout the study period.

2.2 Sampling

A convenience sample of teachers and their classrooms from Toronto’s two largest school boards were enlisted through elementary schools with research or training connections to the Dr. Eric Jackman Institute of Child Study at the Ontario Institute for Studies in Education, University of Toronto (OISE/UT). In the first step of the sample construction, administrative approval from the school principal was sought in order for teaching staff to be approached regarding participation in the study [Appendix A: Information Letter for Principals]. Most principals who were approached (7/10) consented. Once principal approval was obtained, information letters were disseminated to all Kindergarten and Grade One teachers in that school; those interested in participating were asked to complete a consent form [Appendix B: Information Letter and Consent Form for Teachers]. Participation was strictly voluntary, with teachers and schools free to withdraw at any time without penalty. A $100 honorarium towards
the purchase of classroom resources was provided to all teachers who completed the study. Although no student-specific data were collected and parental consent was not required, an information letter was sent home to parents explaining the study’s purpose and objectives [Appendix C: Information Letter for Parents].

2.3 Participants

The classrooms sampled for this study embodied a variety of classroom attributes, student compositions, and teacher characteristics representative of elementary schools in Ontario, as per corroborating and publicly-available provincial and district school board-level data reported by the Ontario Ministry of Education, Early Development Instrument data for Toronto, the Learning Opportunity Index, and school-specific profiles for the observation year (2007-2008).

The observed classrooms were drawn from seven schools in Toronto; six operated by the largest school board in Canada and the fourth largest in North America, and one by the second largest English board in Toronto. The general socioeconomic rank of the first six schools is provided by a Learning Opportunities Index (LOI):

“The LOI ranks each school based on measures of external challenges affecting student success. The school with the greatest level of external challenges is ranked number one and is described as highest on the index. The variables in the LOI have been identified as external factors that impact educational achievement. They include measures of income and poverty, parents’ education, and proportion of lone-parent families. In the calculation of the LOI, the factors that most strongly track poor educational outcomes were selected” (District School Board, 2009).
As LOI assessments are completed every two years, the most relevant data came from 2009. The index for all 475 Elementary Schools in school board #1 ranged from .001 to .992, with the six schools in this study covering a broad range between .007 to .840, or otherwise ranking between schools 68 to 469 on the list (District School Board, 2009). Although schools in school board #2 are not subject to LOI assessment, the school’s online profile lists the percentage of students who live in lower-income households at almost double the provincial rate, while the percentage of students whose parents had some university education was reported as 21% compared to the provincial rate of 37% (Ontario Ministry of Education, 2010). This profile somewhat resembles that of school #6, with an LOI index of .840. Overall, the six schools from school board #1 cover a representative range from high to low challenges, while the school from school board #2 falls in the middle to higher range of external challenges affecting student success per the demographic index distribution.

A total of seven Kindergarten and six Grade One teachers participated in the study, opening their classrooms to observations. Overall class sizes across the 13 classrooms ranged from 17 to 22 students ($M_{KG} = 19.9, SD = 1.3; M_{Gr1} = 19.9, SD = 2.1$) with an approximately 50:50 ratio of male ($M_{KG} = 10.1, SD = .7; M_{Gr1} = 9.5, SD = 2$) to female ($M_{KG} = 9.7, SD = 1.6; M_{Gr1} = 10.3, SD = 2.3$) students. This is comparable to provincial-level compositions as reported by the Ontario Ministry of Education (MEDU) for the 2007-2008 academic year (2008). Participating teachers estimated percentage of visible minorities represented in their classroom at an overall mean of $M = 21\%$ ($SD = 10\%, Range = 6.0\%$ to 32%) and 11 out of 13 teachers reported the presence of at least one student with either a physical, social, or learning disability (although not all instances were formally assessed). To further describe the sample in terms of language spoken at home, neighbourhood-level (based on residential postal code) scores from
the Early Development Instrument (EDI) were consulted. The EDI, a 104-item questionnaire that provides a population-based measure of children’s development based on five domains, is completed in the Spring by Kindergarten teachers, generally for Senior Kindergarten students only. The most relevant EDI scores reported in 2008 (Mothercraft, Riding Profiles 2007-2008) for the percentage of neighbourhood population (EDI scores are reported by riding and further divided by neighbourhood; therefore this information is reported by school neighbourhood) speaking a home language other than English for all seven schools, ranged from 5% to 42%, with other home languages reported, from most to least prevalent, including: Chinese, Urdu, Bengali, Portuguese, Spanish, Polish, Ukrainian, Serbian and Greek.

Kindergarten teachers in the study sample reported years in teaching ranging from five to 25 years, with a mean of 14.5 years ($SD = 9.2$). Four out of the seven reported additional professional qualifications: Master of Education (Med: 1/7), Early Childhood Education certification (ECE: 2/7), and one teacher had completed Additional Qualifications (AQs) accredited by the Ontario College of Teachers (OCT), in religion, special education, English as a second language (ESL), and drama. Grade One teachers reported a similar range of experience from four to 25 years, with a mean of 16.0 years ($SD = 7.8$). Half reported additional professional qualifications: Master of Arts in Child Study and Education (MA: 1/6), ECE certification (1/6), and two teachers had completed OCT-accredited AQs (one specialized in ESL and primary education, while the other had completed Librarian, Part 1). All teachers were female. According to the Ontario MEDU, women made up 80.8% of all “department heads and classroom and other teachers” in the Province’s elementary panel in 2007-2008 (2008, p. 10). All seven Kindergarten and four out of six Grade One teachers completed the entire study. One Grade One teacher withdrew during the second data collection period citing a busy schedule –
her classroom data from the Fall are included. Another Grade One teacher failed to submit her completed daily Instructional Logs during the Spring Term despite multiple communication attempts – all other data from her classroom are included.

2.4 Pilot Testing of Data Collection Tools

In order to explore the validity and relevance of the study’s original three data collection tools – daily Instructional Logs (logs), teacher interviews, and classroom observations (running records) – consultations engaged two experienced (over 10 years of experience) teachers; one Kindergarten and one Grade One teacher, from two different schools (one located in an affluent neighborhood and another representing a downtown inner-city school) in Toronto during the Fall term of 2006. As these were pilot studies, data collected were not included in the final study. Both teachers consulted had previously taught at both the Kindergarten and Grade One levels. Detailed running records of classroom observations were conducted by several members of the research team and shared within the research group, as well as with the classroom teachers and other adults present during the observation period (e.g., student teachers). Furthermore, teachers were asked to review the items included in the logs as well as the teacher interview questions, and provide any feedback they believed would assist researchers in capturing an accurate account of daily Kindergarten and Grade One classroom activities and routines. Revisions were made to all tools in order to ensure clarity, brevity, and appropriateness, as follows:

- Daily Instructional Logs [Appendix D]: one item (“classroom management”) was omitted as it was deemed too vague and not a direct instructional item. Several other items were re-worded to reflect current terminology (“basal reading texts” reworded to “leveled reading texts”), developmental abilities of students (“write stories in a journal”
reworded to “entries in a journal”), and provide additional clarification (“dictate stories” reworded to “dictate stories to an adult”).

- Teacher interview questions [Appendix E]: questions were numbered in order to ease the oral interview process. Furthermore, prompts were added to clarify certain questions; for example when teachers were asked to identify strategies they used to help struggling students meet their reading and language arts goals, the following prompts were recommended: individualized instruction, extra resources or outside-classroom help, and parent participation.

- Classroom observations: a Running Record Template [Appendix F] was created to clearly and concisely organize classroom observations based on activity time, grouping strategy utilized, as well as teacher, and student activities. The focus of the observations was not to be on a single individual, but rather the classroom as a whole. Furthermore, the research team reviewed a chapter from Beaty’s book entitled “Collecting and Recording Observational Data” (1998, p.24-33), along with a 1-page document with “Guiding Questions for Classroom Observations” [Appendix G], developed to assist with structuring running records across all classrooms.

In addition to the above proposed changes to the three existing data collection tools, the teachers participating in the pilot phase advised that a fourth instrument be added to describe the overall literacy environment in the classroom (e.g., word walls). This suggestion led to the creation of the Classroom Literacy Environment Checklist [Appendix H], which includes literacy learning materials and resources ranging from environmental print, to wall/notice board displays, and activity centres, as well as the structural and spatial organization of each case study classroom. The 54 items included were based on observations and previous teaching
experiences of the pre-service student teachers in the research team as well as two former teachers with Kindergarten and Grade One experience in Ontario.

2.5 Data Collection Measures and Protocol

Quantitative and qualitative measures completed for each of the 13 participating classrooms included teacher-reported daily Instructional Logs, one-on-one teacher interviews, classroom observations, and the Classroom Literacy Environment Checklist. Classroom observations and teacher interviews were conducted by a member of the research team. Each team member had prior elementary-level teaching experience as part of the pre-service Master of Arts in Child Study and Education program and attended group training sessions prior to the data collection phase. As noted earlier, the author served as the Research Manager for the project and took part in each aspect of the study including study design, school recruitment, pilot testing of all tools and measures, data collection, as well as completing all data management and analyses for this thesis.

2.5.1 Daily Instructional Logs.

Participating teachers completed daily Instructional Logs (logs) [Appendix D] on five consecutive days during each of the two data collection periods (Fall and Spring). This measurement tool collected teachers’ daily instructional routines (duration, format, content) in the context of various grouping structures, including whole class, one-on-one, and small ability-based groups (same and mixed). The tool included measures of:

- General instruction: total teacher-directed instructional time (regardless of subject)
- Literacy instruction: total time dedicated exclusively to reading and language instruction
- Instructional content: checklist of literacy-based activities (31 items)
Where applicable, the Instructional Logs also noted the presence of other adults (parent volunteers, teacher aides, student teachers, special education teachers) assisting with reading and language arts instruction. Furthermore, Instructional Logs also indicated whether the majority of the time teachers spent on reading and language arts was integrated instruction covering other curriculum areas.

2.5.2 Teacher interviews.

At the end of each week-long teacher-reported data collection period in both the Fall and Spring terms, classroom visits were scheduled to allow the researcher to collect completed logs and to conduct one-on-one teacher interviews – 7-11 questions; 30-45 minutes in duration [Appendix E]. When permission was granted by the teacher, interviews were audio-recorded and transcribed verbatim (8 out of 13 teachers); otherwise detailed notes were taken and subsequently electronically filed. In addition to providing information regarding teacher beliefs, instructional practices, and personal background, interviews further provided insight into teachers’ perspectives on curricular content, student needs, and school practices. Questions focused on a number of areas:

- Teacher background: educational qualifications, professional experiences
- Classroom composition and diversity: students’ age, gender, race/ethnicity, and special needs (where applicable)
- Literacy program: teacher’s annual goals and expectations for the class
- Assessment: teacher, school, and board recommended strategies
- Perceived student ability and corresponding accommodation strategies
- Student grouping: current and past teacher experiences, grouping structures and strategies (types of grouping, rationale for moving students between groups), distribution
of resources amongst various groups, observed and perceived student experiences as a result of grouping (classroom behaviour, self-esteem)

2.5.3 Classroom observations.

Detailed half-day (Kindergarten) and whole-day (Grade One) classroom observations were completed for each classroom during both the Fall and Spring data collection periods. Observations of classroom proceedings organized into categories of time, grouping strategy and corresponding teacher and student activities, were recorded as running records [Appendix F] and where applicable, as additional field notes (e.g., to note informal conversation between teacher and observer), in order to provide a descriptive account of all classroom activities on observation day. The research team members were provided with a series of questions [Appendix G] as a guide to focus and frame their observations. This measure further served as an internal validity check, providing a means for comparing instructional time reported by teachers with those observed by an impartial member of the research team. To further contextualize observations, running records were combed for aspects of classroom life that could potentially affect grouping practices, such as classroom management techniques, assessment practices, and student accommodations strategies. These observations have been summarized for each classroom and teacher as part of the detailed individual case studies presented in the Results Chapter, Section 3.1.

2.5.4 Classroom Literacy Environment Checklist.

The Classroom Literacy Environment Checklist [Appendix H] was added to the final data measurement array based on recommendations from participating teachers during the study’s pilot phase. It provided a snapshot of each classroom’s physical literacy environment (items
posted around the classroom walls and activity centres) as well as the overall physical and spatial layout of each observed classroom. The checklist was completed by all 13 participating teachers during the Fall data collection period.

2.6 Data Storage and Management

Steps were taken to ensure the protection of privacy of all participants. In order to ensure participant confidentiality, each school was assigned a number from 1 through 7, with Kindergarten and Grade One teachers designated letters A or B respectively. All data were filed and stored in a locked cabinet at the Dr. Eric Jackman Institute of Child Study. Only members of the research team had access to data collected during the study, with only the thesis supervisor and author having such privilege at the end of the data collection period. All raw data were destroyed five years following the completion of the study (per letter to principals and participating teachers, see Appendices A and B).

2.7 Data Entry, Scoring and Reporting

In this mixed methods study, quantitative data were collected using the Instructional Logs and the Classroom Literacy Environment Checklist, while qualitative data were primarily collected via the Teacher Interviews. Classroom observations, in the form of running records and field notes (where applicable) provided supplementary quantitative and qualitative data. Quantitative data were analyzed and reported using simple descriptive statistics including means, frequencies, and ranges; t-tests and ANOVAs were used to test group differences (e.g., Kindergarten vs. Grade One classrooms). Qualitative data were analyzed and reported in terms of thematic analyses. The following sections provide more details on how data were coded and reported.
Instructional Logs, and Classroom Observations

All items encompassing teacher-reported daily Instructional Logs [Appendix D] were directly coded. Instructional minutes and the number of teacher aides were entered quantitatively as recorded, while remaining items, namely curriculum integration and literacy instructional content checklist, were scored as either ‘1’ = yes/present, or ‘0’ = no/not present. Detailed classroom observations recorded as running records [template: Appendix F] by the research team were also analyzed and estimates of general and literacy instruction time were calculated.

Classroom Literacy Environment

The 52 items of the Classroom Literacy Environment Checklist [Appendix H] corresponding to the various literacy materials and resources found in each classroom were grouped into categories guided by the Early Language & Literacy Classroom Observation Tool (ELLCO K-3, 2008) and relevant curriculum documents from the Ontario Ministry of Education. The ELLCO toolkit comprises a series of interdependent research tools measuring five key literacy elements: classroom structure, curriculum, the language environment, books and book reading opportunities, and print and early writing supports (Smith, Brady, & Clark-Chiarelli, 2008). In addition, Ontario Ministry of Education’s The Kindergarten Program (Revised, 2006): Language (pp. 33-39), and The Ontario Curriculum, Grades 1-8: Language (Revised, 2006): Grade 1 (pp. 36-47) documents outline a series of learning/overall/specific expectations for students in each respective grade. The final categories devised and used to analyze data from the Classroom Literacy Environment Checklist included: activity centers (14 items); book area and selection (6 items); classroom rules and routines (7 items); visual references (3 items); student-related literacy displays (5 items); writing around the room (5
items); and, writing materials (12 items). The remaining 2 items on the checklist (making a total of 54 items) described structural aspects of the classroom – rug and student desk organization.

**Teacher Interviews**

Once all 25 teacher interviews were conducted and transcribed (where applicable; 8 out of 13 teachers) or typed, teacher responses were thematically analyzed in order to “find repeated patterns of meaning” (Braun & Clarke, 2006, p. 86). The various phases involved in the thematic analysis of all interview data – familiarization with data; generating initial codes; searching for themes; reviewing themes; defining and naming themes; and producing the report – were completed by two doctoral candidate researchers (including the author) who devised the themes separately and met subsequently to review, discuss and finalize the emerging themes (Braun & Clarke, 2006). Subsequently, following Johnson, Onwuegbuzie, and Turner (2007) all data were quantified “to provide information about quantity in addition to quality”; that is, using the themes derived from qualitative interview data, teacher responses were “transformed to numerical form” to summarize the total number of teacher responses corresponding to each theme (p.118).

**Individual Classroom Case Descriptions**

Individual case descriptions were compiled in order to provide a detailed picture of each of the 13 participating classrooms during the Fall and Spring data collections periods. The descriptions include (where information was available) summaries of classroom composition/student characteristics, teacher background, teacher’s perceptions of students’ overall school readiness and/or literacy abilities, literacy assessment strategies and instructional goals, classroom management and accommodation strategies, and ability grouping practices.
Individual summaries for each of the participating 13 teachers and classrooms can be found in the Results Chapter, Section 3.1.

2.8 Methodological, Measurement, and Sampling Considerations

The case descriptions and various quantitative data collection tools employed in this study allowed for an in-depth account of teacher experiences and perceptions, instructional practices, as well as school and classroom contexts, typically lacking in large scale studies. While data collected from self-reported logs and one-on-one interviews may be susceptible to social desirability bias – “when a respondent provides an answer which is more socially acceptable than his/her true attitude or behaviour” (Kaminska & Foulsham, 2013, p. 2) – or the Hawthorne/observer effect – “an increase in worker productivity produced by the psychological stimulus of being singled out and made to feel important” (Franke & Kaul, 1978) – converging classroom observations provide a means to compare such accounts with those recorded by an impartial member of the research team.

Furthermore, the selection of participating teachers from seven English-language schools in the greater Toronto region limits the generalizability of study findings; however classroom cases embodied a variety of teacher experiences, student compositions, and instructional arrangements, representative of elementary schools in Ontario – as per statistics reported by the Ontario Ministry of Education, the Early Development Instrument, and District School Board-level Learning Opportunity Index and school profiles, for the observation year (2007-2008), summarized in Section 2.3. This variety ensures that the study’s findings have relevance for other Ontario classrooms. Furthermore, as all participating schools were part of the publicly-funded school boards in Ontario, they were subject to the same government-mandated programs and policies; hence any divergence from these guidelines reflects school and classroom-level
differences. Results do not apply to students in the publicly-funded French-language boards or the private/independent school system in Ontario, which “operate as businesses or non-profit organizations, independently of the Ministry of Education” and “are not required to use the Ontario curriculum” (Government of Ontario, 2013, p. 7).
CHAPTER 3: RESULTS

In this Chapter, results are reported both as individual case descriptions (Section 3.1) and as general group findings across classrooms (Section 3.2). The case descriptions illustrate the unique configuration of teacher beliefs and practices regarding instructional grouping arrangements as influenced by the overall classroom ecology within each classroom. The descriptions emphasize teachers’ social behaviour perceptions and Bronfenbrenner’s structural/physical constructs of the classroom microsystems, including physical space, materials, and classroom members. The case descriptions are intended to show variability across classrooms and how each teacher’s grouping practice is uniquely embedded in the ecology of the classroom. The general group findings following in Sections 3.2-3.4, then explore overall trends across classrooms as organized by the three microsystem levels outlined earlier. The general results illustrate the variability across grade levels in Kindergarten and Grade One, as well as the variability across individual classrooms, within grade levels. Importantly the group findings also summarize the data around the nine key research questions outlined in the Introduction chapter, Section 1.6.

3.1 Individual Classroom Case Descriptions

In this section, qualitative data collected using one-on-one interviews and classroom observations, are summarized individually for each of the 13 classroom cases. Attempts have been made to report data consistently across each of the cases; however some cases are more descriptive depending on the level and amount of data shared by teachers during interviews. Case descriptions are divided by data collection period and have been organized as follows:

- Classroom composition (e.g., total number of students, gender distribution, language status, special education needs) and teacher background (total number of years teaching, years in Kindergarten/Grade One, any additional professional
qualifications). This information was reported as available and only applied to Fall Term summaries.

- Teacher’s perceptions of students’ overall school readiness and/or literacy abilities, as well as literacy assessment strategies (e.g., informal observations, DRA level⁵) used to determine readiness/literacy ability
- Teacher’s literacy instructional goals (e.g., reading program if applicable) and opportunities for language learning beyond formal instruction (e.g., play-based learning, parental involvement/learning extensions at home)
- Classroom management strategies (e.g., routines, behavior management strategies, transitions between various instructional blocks)
- Accommodation strategies
- Ability grouping practices (e.g., teacher’s prior history of use, re-grouping rationales)

3.1.1 Kindergarten classrooms (T1A-T7A).

3.1.1.1. Teacher T1A.

Fall Term

Teacher 1A’s classroom consisted of 20 students; 10 males, 10 females; 8 Senior Kindergarten students (SKs), 12 Junior Kindergarten students (JKs); 75% spoke English as their first language; and none were identified with special needs. She had begun her studies in the sciences but decided to apply for teacher’s college and had been teaching for at least 5 years.

⁵ The Developmental Reading Assessment (DRA) is a standardized reading test consisting of “one-on-one reading conferences that evaluate accuracy of oral reading and comprehension through reading and retelling of fiction and nonfiction texts. Students are determined to be near, at, or above grade level, below grade level, or significantly below grade level based on their performance on the assessment relative to their grade level status” (Beaver, 2001 as reported by Hastings & Prince Edward District School Board, 2008, p.3). Reading A-Z (LAZEL, Inc., 2017) has developed a Learning Correlation Chart in order to compare and correlate a number of popular primary literacy-based programs with children ages, grade levels, and DRA scores: https://www.readinga-z.com/updates/raz_correlation_chart.pdf
The teacher evaluated students’ general school readiness at a 7-8 out of 10 and “all ripe and ready” for learning, and believed this was because the majority had prior experiences in nursery school or play groups meaning they were able to work in groups and listen to the teacher. One student was identified as “behind the rest of the group” (late birthday, different language spoken at home) and unable to identify randomly assigned numbers or letters on the informal teacher-devised school readiness assessment tool. In terms of reading ability, the eight SKs in the morning class were described as “relatively weak compared to the afternoon class - low to average at best” with recognizable gender differences noted: the two female students were described as high ability, while the six male students as low ability. Given the importance of developmental maturation to Teacher 1A’s teaching philosophy, and her belief that “a child cannot run before they walk; if the development and maturation piece hasn’t happened then it isn’t fair to expect more from them”, prior to the beginning of the year, a six-page inventory was sent home to assess each child’s developmental achievements according to parents (e.g., walking, talking).

The teacher’s literacy goals were to “pass on children who are ideally sitting at [DRA level] 2, 4, or 6” with the “ability to recognize their own name and some of the other names on the class list”. Songs, Jolly Phonics, borrow-a-book, letter of the day and small group activities comprised the majority of her literacy programming. Furthermore, Teacher 1A indicated the desire to implement leveled readers, and one-on-one reading instruction in the Spring Term. The calendar routine took place daily with the assistance of a selected “student leader” (who sat next to the teacher in a special chair and led the “show & tell” activity), and parents were encouraged to extend the activities at home (e.g., looking for the letter of the week in bedtime story books), as Teacher 1A believed “there is so much [students] can extract” from this routine. Parental involvement was emphasized as an important part of this teacher’s practice. As well, Teacher
1A appreciated the “value of the play experience” and feared the “risk that some of the kids gained intellectually at the risk of their social skills”; therefore, play remained an integral component of classroom activity to “make sure that the social emotional pieces are in place.”

According to the running record and field notes collected on the observation day, Teacher 1A’s class operated based on a series of rules and routines: children entered the classroom one-by-one having removed their coat and bag, recorded their own name on the blackboard using magnets, returned their borrow-a-book, and sat by the Author’s Chair to read independently. To gain students’ attention, the teacher used songs and rhymes (e.g., good morning or tidy up songs) and reinforced desired behaviour (e.g., verbal praise) in order to encourage positive classroom conduct.

Accommodations were made based on student needs; for low ability students, there was “a lot of waiting and watching: some kids are just at a slower pace developmentally”, while high ability JKs were encouraged to complete SK activities, and SKs who were “really strong” were “invited to extend their work” through activities with the letter of the week, or complementing literacy activities with drawings.

Teacher 1A did not use ability groupings “per se,” but recalled having spent time in such groups in Grade 1 herself: “it served me well to work with people of the same level” although “it was a lot of work for our teachers.”

Spring Term

Teacher 1A evaluated students’ reading ability as “average” with two children functioning below average and a “number of kids reading above average level, who get support at home.” In addition to the teacher-devised random assignment tool utilized at the beginning of the year, Teacher 1A also used sight word identification (progressing to emergent word lists) as a means
of assessing student reading progress. DRA was administered in April/May with the SKs only; scores generally reflected the teacher’s observations.

The teacher’s individualized reading program consisted of one-on-one instruction using small phonics books with accompanying worksheets, readers, and sight word identification activities (e.g., I, it, the). SKs were scheduled to begin journal activities.

Classroom management routines remained generally the same as the Fall Term.

Accommodation strategies included daily shared writing, materials sent home to encourage parental support (e.g., Leap Frog ABC video), and focus on repetition and concepts of print (e.g., initial letters, number of words on each line). According to this teacher, “in kindergarten there isn’t anything in place in the way of enrichment; it is more about identification for Grade 1 ... it is a fine line between maturation issues or learning difficulties and not prematurely labeling them”. In the past, School 1 provided the Reading Recovery program for Grade One students only.

The teacher reported grouping students by age: “the SK go off one day and work on their own and then the reverse happens the following day; the JKS go off on their own.” Teacher 1A hoped to keep “the feeling [in the classroom] light and buoyant about reading.” If students were functioning at an acceptable level according to the teacher’s expectations, one-on-one support was minimal and “concentrated on those at a lower level”.

3.1.1.2. Teacher T2A.

Fall Term

Teacher 2A’s classroom consisted of 18 students; 10 males, 8 females; 12 SKs, 6 JKS; and two students believed by the teacher to require formal assessment for autism and selective
mutism. She had taught for 28 years and at the time, had been teaching in School 2 for 20 years.

The teacher perceived students’ school readiness “for the most part as quite ready”; this was evaluated by observations of child activity choices (e.g., “do they ever go to the bookshelf and pick out a book?”), attentiveness, participation, oral language (e.g., providing opinions about reading material) and attention to environmental print. In Teacher 2A’s experiences, forms completed by parents were not “always useful” as parents “don’t really know their children in a classroom context or they are not particularly honest about their child’s abilities to socialize, share, and listen.”

The teacher’s literacy goals were curriculum-based with students “expected to read a little bit and write a sentence like “I love my mom’”; however she strongly believed that writing is “inappropriate” at the Kindergarten level because: “I can teach them to write “this is a’” and they can do it literally backwards and forwards, but whether they can write it out of context or recognize the words out of context is an entirely different thing.” Furthermore, Teacher 2A believed that SKs were typically “at the same place in June in Kindergarten as they would be at the end of September in Grade One,” therefore it would be unreasonable to “push” them to write a “little sentence”; a task which she likened to “pulling teeth.” The majority of her programming was comprised of activity centres (on observation day, these included: music, magnets, journal and drawing, puzzles and counting, painting, sand, big blocks, drama and dress-up, and reading). JKs were allowed free choice all morning, while she occasionally pulled out SKs (typically for 10 minutes) for guided, choral, and shared reading (in small groups, based on ability), or journals, after which they were allowed to resume their free choice of activity centres. Parents were encouraged to assist in their children’s literacy
development by using flash cards, labeling their rooms, collectively writing thank you notes, birthday invitations and grocery lists.

According to the observation day running record and field notes, Teacher 2A used songs to focus student attention (e.g., “1,2,3,4, books away please”) and typical routines such as circle time (e.g., read-aloud, phonics and initial sounds games) and calendar activities. Children appeared well-adjusted to classroom expectations. With the exception of two students (the chronologically youngest and an English as a Second Language (ESL) student), the others appeared to know what they were expected to do and where they were expected to go throughout the various daily transitions (e.g., activity centres to snack, or outdoor play).

Accommodations were made on an individual-basis – for example, a student with hyperlexia (who was reading at the Grade Three level), was given special jobs (e.g., helping his classmates to read and to choose their library books) and encouraged to improve his fine motor skills (printing and drawing) which were comparatively poor.

When Teacher 2A was asked whether in the past she had ever grouped students by ability for reading instruction, she explained that she had previously used mixed-ability grouping along with individualized reading programs when teaching Grades One and Two, but “didn’t like it”: “I find reading groups really difficult, maybe it takes a different kind of teacher.” This divergence between teacher beliefs (teacher explicitly explaining that grouping is not for her) and observed classroom practices (teacher pulled out students for various literacy activities), is an example of how triangulating data may help in interpreting what is observed vs. perceptions shared by teachers.
Spring Term

Teacher 2A evaluated students’ reading ability at a DRA level 6 (corresponding to children ages 4-6 years and in Grade One), administered in May, concluding that “all of them can read a bit” by the Spring term.

In addition to teacher observations used during the Fall Term (gravitation towards books, attentiveness, participation, oral language mastery), Teacher 2A further assessed students’ reading and language aptitude by their ability to follow the teacher in singing individual letter sounds, as well as the alphabet song, with a focus on letter sounds rather than letter names. Attention was also paid to reading practices at home (e.g., favourite books or authors), drawing ability, and reading interest; “usually I can predict by watching the children in how interested they are in what I’m reading to them. That’s usually a good indicator that the child is ready to learn to read.”

Songs and games including Alphabet Bingo!, show cards, stickies, and flash cards, made up the bulk of Teacher 2A’s language arts programming. The activity centers during the observation day included literacy (Letter Lego, small alphabet books, notepads), space, drawing, sorting and counting, arts and crafts, sand, big blocks, drama dress up, and reading.

Classroom management routines remained generally the same as the Fall Term. According to the field notes from the observation day, with only a few exceptions, students were a lot more accustomed to rules and routines and followed them easily without much guidance.

Teacher 2A attempted to “meet the needs of all [students] so some days, I will read a story of more sophisticated vocabulary and concepts, and other days I will read something very simple”; however if a story caused “frustration”, it would be split into two parts to be
read over a sequence of days. Mandatory activities for SKs were provided as options for JKS interested in taking part. Furthermore, Teacher 2A tried to ensure students were surrounded by print and she encouraged independence in those who “want to write and know how to write.”

Finally Teacher 2A modeled excitement in literacy practices in an effort to engage those students less interested. Although School 2 provided “lots of materials” and “workshops on different ways to help children how to read”, Teacher 2A didn’t “think there is any new way to do it ... I mean it’s kind of cyclical.” An example provided was the use of sight words relevant to each individual child and “constant drilling” – teacher 2A expressed a distaste for this strategy as she noticed one of her students who relied on this technique to recall letter sounds had developed “low self-esteem” since the knowledge was not appropriately “consolidated” and hence the student was unable to retain the information effectively.

In the Spring Term, School 2 hired a new principal who favoured ability-based student groups, therefore Teacher 2A began utilizing mixed-ability reading groups but found that “it’s not working for me because I have to keep my eyes on the other children”. Ability groups were formed based on student performance on a teacher-devised assessment sheet containing “all the letters and a few sight words and colour words”; however she found “reading groups really difficult with Kindergarten.” At the time of the interview, 10 reading sessions had already been implemented with small mixed-ability groups. The teacher reported that further sessions were not possible as the class had “gone through all the books we have so far.” Groups were altered if conflicts arose amongst students, although Teacher 2A felt that Kindergarten students are “too egocentric, so they don’t notice that they are in these different groups” and “really don’t see themselves as part of the group.”
3.1.1.3. Teacher T3A.

Fall Term

Teacher 3A’s classroom consisted of 21 students; 11 males, 10 females; 5 SKs, 16 “very young and very needy” JKS; and five students believed to have special needs (one with an Individualized Education Program, and four awaiting diagnosis). She had been teaching for five years and was in her second year of teaching Kindergarten at School 3.

The teacher described her morning class as “quite demanding” given that 76% of her students were JKS and “for many of these students, school was a big shock to them.” Students exhibited a wide range of abilities ranging from learning letter names and sounds, to a student reading independently at the Grade One level. Assessment was mainly based on informal observations; however the teacher assessed the majority of SKs (3/5) at the beginning of the school year using worksheets (e.g., letter recognition, writing their names) in order to determine their general level of existing literacy knowledge. Two SKs were “working at a 2-year old level.”

Teacher 3A’s literacy instructional goal was to have all SKs reading at a DRA level 6, but the teacher did not “anticipate that all SKs will reach these goals.” Students were assigned to designated learning centres (on observation day these were sand and construction, puzzles and paint, toys and drama, water, and arts and crafts) according to the four teacher-allocated “colour groups.” Free time was provided for a period of 20 minutes after snack, during which the teacher withdrew small groups of students for reading instruction (on observation day). The teacher also modeled literacy behaviours (e.g., in the morning when students arrived, the teacher sat on the carpet and read a book independently).
The majority of classroom management strategies utilized by Teacher 3A were “focused on getting into routine, being comfortable in school, liking school, making friends, etc.” (e.g., self-attendance using name cards, calendar and goodbye song, permission to get ready for dismissal based on sight-word identification). In order to focus students’ attention, Teacher 3A would turn off the lights in preparation for transitions.

Accommodations were made depending on student ability; the teacher developed an inclusive language arts program that incorporated student choice and individualized programming for all. For those with greater needs, one-on-one instruction was utilized with special education students receiving foundational literacy skills.

When Teacher 3A was asked whether in the past she had ever grouped students by ability for reading instruction, she explained that she had used ability groupings in the past and found that “they worked really well” with Grade One students.

**Spring Term**

According to DRA assessments, “many” SKs in Teacher 3A’s class were “at the right level ... ready for grade 1,” while JKs were for the most part comfortable reading sight words and basic patterning books. Reading and language arts progress was evaluated using teacher observations during one-on-one, small group, and guided reading activities: students were assessed according to their ability to read letters, sight words, and a variety of materials from different levels in occasionally different reading groups.

Teacher 3A used a “mix of programs” including Jolly Phonics, Dolch Sight Words (particularly with SKs), and Making Words (Cunningham & Hall). “Basic level reading books” were provided at the beginning of the year, with varying selections “according to levels” throughout the year. School 3 and the associated Board advocated the use of guided reading
group program (workshops offered by Board), the *Lucy Calkins Project* (adopted by School 3), and *Big Books* (decided among School 3 staff) in shared reading activities. Teacher 3A saw “*the importance of doing guided reading*” and implemented “*this practice where possible*”. Although one-on-one instruction was utilized for students with particular needs (advanced or below average reading performance), the majority of reading instruction occurred in groups, primarily consisting of pairs. Teacher 3A “*pushed all the SKs to progress in their reading to reach a certain level,*” while the approach with JK students was “*a lot more flexible*” (activity centres in addition to “*continual*” praise and encouragement regarding their progress) so as to not “*discourage students from reading*”: “*they just may not be ready yet or don’t have the confidence yet*”. One student was “*off the charts*”, reading well beyond the Kindergarten level, and hence provided with her own “*reading program to accommodate her advanced reading level.*”

On the observation day, students appeared to follow a set of well-established routines: after entering the classroom and putting their things away, each student selected his/her name card from the pile spread across a table by the teacher and placed it on a bulletin board (with pockets and corresponding names pasted on the front), returned their borrow-a-book, and proceeded to engage in independent reading on the carpet. After the calendar routine and circle time (teacher read-aloud), students were randomly assigned (according to when they completed their craft activity) to an activity centre. Teacher 3A then pulled out small groups of students: three for guided reading (same-ability group, ~10 minutes), followed by five for independent journal work (mixed-ability group, ~15 minutes), and two others for guided reading which lead to a related patterning activity (same-ability group, ~10 minutes). This was sequentially done over a period of approximately 35 minutes. For transitions, teacher shut off the lights.
When accommodating for student variability in reading, Teacher 3A went “with the flow” taking into consideration student interest and ability, while changing strategies “every day.” Advanced readers were encouraged to read independently or with an Education Assistant/volunteer, with the teacher attempting to “meet with more struggling readers, more frequently but for shorter periods of time.” Furthermore Teacher 3A ensured that “each student has a chance to learn to read.”

Teacher 3A only implemented same-ability groupings during guided reading activities (“since the teacher can focus on a particular reading level and can focus on certain students”), otherwise “groups are mixed” (e.g., activity centres). Students were grouped based on ability, “moods,” “the circumstances of the classroom at the time based on teacher’s observations and according to teacher’s discretion” and at least one group (usually two) met every day. Groups changed “often ... all year around”; sometimes students were moved to a higher group and sometimes to a lower group (less often) “to ensure that students feel confident in their reading” (e.g., “if some students are reading faster, the teacher does not want those who are struggling to feel like they’re being left out”). Teacher 3A did not feel that Kindergarten students experienced the same effects of groupings as her Grade One students who “would look at the level of the book they were reading and wanted to be in certain groups” and whose “self-esteem was affected by the group they were put in.”

3.1.1.4. Teacher T4A.

Fall Term

Teacher 4A’s class consisted of 18 students; 11 males, 7 females; “mostly” JKS; and two students believed by the teacher to have special needs. She emphasized that her background was “actually in early childhood education.”
Students were “pretty well ready” for Kindergarten with a majority able to “read words and some who really don’t have a clue and are just getting the letters and sounds.” School readiness was assessed using parent evaluations, as well as teacher-devised observations – e.g., ability to hold a pencil properly, draw pictures, write their own name, and identify the beginning sounds of names.

Teacher 4A’s goals for JKS included the ability to recognize alphabet letters and sounds, “know and function” using lower case letters (although both upper and lower case letters were taught simultaneously) and write their own name. SKs were expected to have knowledge of “some” sight words, write “some” words spontaneously and “also to look at the word wall and use strategies in getting the words and sounding them out.” All students were anticipated to meet these goals. At the time of the interview, JK students were described as “for the most part at the same level” (teacher concentrated on letter sounds and names using book walks), while SK students had sufficient letter knowledge for the teacher to concentrate on words (sounding them out or copying them from books or teacher models). Teacher 4A relied heavily on worksheets, one-on-one reading instruction and the Jolly Phonics (JP) program, but expressed a distaste for the JP reading books, stating that “I find them kind of hokey”; therefore a “hodgepodge” of books including those from JP and the teacher’s personal collection were used.

Teacher 4A used songs to gain student attention for transitions (e.g., cleanup, dismissal), while behaviour management strategies included separating students physically (trading spots, changing seats), songs (singing the names of students ready) and choral clapping. On the observation day, students were assigned to designated learning centres (printing: worksheets, copying words left on the table by teacher; math: worksheets; creative centre: Christmas crafts; free choice) according to the four teacher-allocated “colour groups” (green, blue, purple, red),
while two students were pulled out individually for one-on-one reading with the teacher. The teacher later related in the interview that activities completed one-on-one reflected the students’ ability (e.g., JKS = book walks, using actions to sound out letters; SKs = sounding out words). Students were permitted free play after finishing their work and showing the final product to the teacher for approval. Activities included letter templates, airplanes, and blocks, while circle time and calendar routines made up the remaining classroom time.

Accommodations were made based on individual ability with Teacher 4A emphasizing the importance of potential and interest: “you have to work on potential. If a child picks up a book and they don’t know the words but they can tell you what’s happening in the story and they are really really interested, that’s pre-reading and you build up on interest. Once the interest is there, you can introduce the letter and the sound.” With SKs, efforts were made to “solidify the knowledge they already have from last year” and “building on what they know,” while JK books were chosen based on ability level: “I would pull a higher book for some of them who are reading and lower books for ones just getting the sounds now.”

Teacher 4A used colour groupings and had previously used ability groups when teaching Grade One. She found this instructional approach “good because [students] were working at their own level,” however she went on to clarify that her positive view of ability grouping was because she had used this practice in Grade One, where she believed it was feasible: “it was Grade One, so you could really do that.”

Spring Term

Teacher 4A conducted the DRA in the Spring Term, concluding that “there are always students who can’t answer every reading comprehension question for every book”; however overall the class was “an average Kindergarten with emergent readers” with both high and low
readers, depending on “if they are read to at home.” Reading progress was assessed using daily anecdotal notes, checklists, and individual conferencing. Teacher 4A made use of Jolly Phonics and EZ books and expected students “to learn to read a little and to learn that letters make words.”

Reading instruction was provided both one-on-one and in small ability-based colour groups (Green = high ability; Blue; Purple; and, Red = mixed, lower ability). Interest was viewed as an important component of reading and language arts progress, however Teacher 4A stated that “if they don’t have interest I make them do it even if they don’t want to.” Students were pulled out for individual conferences and questioned “about things that they would be interested in” in order to make reading “more meaningful to them.”

Classroom management routines remained generally the same as the Fall Term: songs, rhymes and choral clapping were the main strategies used to gain student attention. Student activity was dependent on the teacher-devised colour groups: Green = math: worksheets; Blue = creative centre: painting; Purple = free choice: reading, colouring; Red = printing: worksheets. On the observation day, Teacher 4A pulled out three students for one-on-one reading sessions. Students who had completed their work were allowed free play: building and drama centre.

Accommodations were based on needs with the teacher keeping a close eye on “where the kids are at and keep a bigger eye on kids who need help.” Those requiring additional assistance were provided with easier books and parents were encouraged to read to them at home.

Teacher 4A used ability-based colour groups, with each “at a particular centre at the same time such as printing, math, art. I pull students out to conference with them during these centre times.” Groups were “changed around over the year” when students were not getting
along, required socialization with other peers, or wanted an additional challenge (e.g., “JK students who are ready to move up can be challenged by working with SK students”).

3.1.1.5. Teacher T5A.

Fall Term

Teacher 5A’s class consisted of 21 students; 10 males, 11 females; “most speak [a minority language] at home as their first language with parents who do not speak English”; and five students whom the teacher wanted to recommend to the school-based support team for assessment. Two students attended a remediation program and required additional support. She had taught for nine years – five in Kindergarten.

Teacher 5A evaluated students’ school readiness as “my lowest functioning group; they don’t seem interested and it takes a lot of effort to ensure that they focusing and responding. None of the students came knowing their alphabet, name, that sort of thing because they don’t speak English at home. I have to teach them all of the basics at school...the parents work late and do little work at home so most of what they get is at school – but the parents will support what you teach.” At the beginning of the year, as well as at two other intervals, Teacher 5A assessed student readiness by withdrawing students one-on-one using multiple tools such as testing alphabet/sound recall/recognition, writing samples, running records, the Rosner Test of Auditory Analysis Skills (phonological awareness test), and familiarity with concepts of print.

The teacher’s literacy goal was “to make them ready for Grade One” but she did not anticipate that all students would reach this goal given that “only 55-60% were reading A, B books” (compared to 90% in her afternoon class) - Levels: A = early Kindergarten; B= Kindergarten; C= above leveled texts. She further predicted that “a few will not be reading” based on the fact that “some still only know four-to-five letters of the alphabet and have
difficulty with concepts of print (e.g., finding the title, etc.)” Her reading program was comprised of many aspects such as songs, poems, *Jolly Phonics*, learning three new sight words per week, word wall, initial and final word sounds, modeling and having students echo reading and phonics behaviours, leveled readers, progressive guided reading groups, as well as making use of various reading programs (e.g., *Ginn* book series). Activity centres were not used on the day of observation, nor were there instances of students being given opportunity to select an activity as the morning consisted of structured whole group literacy programming.

According to the observation day, Teacher 5A’s class operated based on a series of rules and routines: children entered the classroom and proceeded to the carpet to wait quietly with their homework in hand. Students demonstrated an understanding of expected classroom comportment by raising their hands to speak and not speaking out of turn. The teacher modeled, prompted, and praised desired reading behaviour and used songs for transitions.

Individual accommodations were made in the form of sending home leveled readers, teaching children different reading strategies according to need, and “pull[ing] out students when extra help is needed” to “work on such things as letter sounds.” “All students get the same exposure regardless of readiness. [I] introduce[d] concepts to the whole class based on where they [were] in general as a class (i.e., the morning class [was] looking at pictures and beginning sounds still).” Group-level accommodations included a lot of repetition, word wall, clapping sounds, literacy games (e.g., with the word wall and concepts of print), focusing on the alphabet, sending home books to read, poem books studied in class and sent home with activities, and focusing on a book per week. For higher ability students, Teacher 5A introduced level-based strategies, different writing expectations (i.e., more than one sentence), and set goals
“based on those in the Kindergarten expectations – by the end of Kindergarten 75% of students are reading at Level B.”

While Teacher 5A indicated that guided reading groups were organized by same ability with at least four children per group, in the Fall term the teacher was “doing it together as a class, may start late second or third term because of the level of the class.” During circle time, Teacher 5A “will pair low and high functioning [children] to help with their tracking.”

**Spring Term**

Teacher 5A evaluated 16 students’ reading ability as B/C level, with five non-readers. One running record of reading (DRA-like assessment) was completed per child per term on a one-on-one basis; the text on which students were assessed on was selected in accordance with the strategy being taught that term (e.g., “this term it is about making predictions”), with a pre- and post-test.

In addition to programs used in the Fall Term, the teacher introduced a Book Bag program.

Classroom management routines remained generally the same as the Fall Term.

Individual accommodations were made in the form of introducing books at the student’s level to “reinforce what they’re lacking, teach what their difficulties are”; modifying seat work; pulling students (of the same ability) out of their heritage language lesson for 10 minutes a day to practice letters; and reviewing “what do good readers do.”

The teacher acknowledged grouping students “with varied abilities” during whole class learning where “low ones are paired with high students who hold their finger and help the struggling readers track.” Teacher 5A intended to group by ability for guided reading in May.
3.1.1.6. Teacher T6A.

Fall Term

Teacher 6A’s classroom consisted of 20 students; 9 males, 11 females; 8 SKs, 12 JKS; and two students diagnosed with special needs (Attention Deficit Hyperactivity Disorder, Autism Spectrum Disorder). She had taught for 19 years, with 11 years of experience at School 6.

In terms of school readiness, SKs were deemed “very, very well-prepared” based on both the teacher’s personal knowledge of their abilities and their report cards from the previous year. School readiness for JKS was mainly assessed by parent interviews in June; Teacher 6A “interviewed every JK parent ... and met every JK child before they started school.” They were perceived to be “really well-prepared” as many were enrolled in pre-school programs (nursery) and a letter had been sent out in the summer which “explained things to them [parents].”

Although the DRA was completed with both JKS (informally) and SKs in order to meet Board requirements, Teacher 6A believed that “it’s not black and white the way it is spelled in the [curriculum] expectations and some children, I will predict will always” require additional assistance; there is no “quick fix.”

Teacher 6A’s goals reflected the belief that “it’s important for the Grade One teachers to have the baseline to know where [students] are at so that early intervention can happen quickly.” Borrow-a-book, book buddies (“trained how to introduce the book and ... ask questions”), Handwriting Without Tears, and one-one-one and small group activities made up the majority of Teacher 6A’s reading and literacy programming – Jolly phonics was not used “because to me it’s very artificial.” Furthermore, communication with parents occurred on a regular basis. All parents had access to the teacher’s e-mail address; were kept informed of their child’s progress (e.g., suspected special needs, academic progress); frequently volunteered to assist with classroom activities; and were encouraged to extend activities at home. Teacher 6A’s
classroom consisted of two rooms with one supervised by the teacher (carpet, literacy and computer centres) and the other by the Education Assistant (other activity centres). In addition to calendar and circle routines, the majority of classroom time was spent in activity centres – on observation day, these included snack, puzzles, blocks, drama and dress-up, playdough, arts and crafts, and a literacy centre with teacher-devised worksheets and journals. Teacher 6A stayed with the small literacy group (six students) to provide instructions and support.

As noted on the observation day, Teacher 6A mainly used choral songs, clapping, snapping, and 5-point checks to focus attention during transitions and activities. Students were assigned individual seats according to colour squares on the carpet and sat in a boy/girl/boy/girl consecutive order. Classroom management strategies included positive reinforcement (verbal praise) and encouraging self-regulation in children (e.g., if misbehaving, teacher would first point at the child silently, then ask if they need to be excused to settle down).

Accommodations were “customized” to individual needs; activities were generally “open-ended ... so that kids can work up (to) their potential” (e.g., journals: sounding out one word to writing sentences to a complete paragraph) with reading materials provided to “fill in the whole spectrum.” Teacher 6A emphasized the importance of the “developmental grid” and that although some students “seem to plateau for a long time” they just one day “sort of learn, then boom: they are reading!”

Teacher 6A had used ability groupings in the past for guided reading with Grade Two students and “used some of those techniques for modeling” with Kindergarten students (e.g., beach ball to pose comprehension questions). Small mixed-ability groups were commonly utilized as Teacher 6A “strongly believe[d] that children at this age learn from each other so I will often pair” SKs and JKS – e.g., SKs can “peer-model ... answering ... and formulating”
questions, or if they share common interests and “can extend something together,” students were paired to write a related story together. This seemingly reflected the teacher’s prior experiences of ready buddy groups. Although literacy activities were completed in groups, teacher was adamant in reminding students that “groups would change and alter” and hence “didn’t give them names ... or colours.”

**Spring Term**

“Most” of Teacher 6A’s students were reading by the Spring Term: JKS were averaged at level D (on the *Fountas & Pinnell* guided reading series) – comparable to DRA level 6 (correlated with children ages 4-6 and Grade One level), while SKs students averaged at level E – comparable to DRA level 8 (correlated with children ages 6-7 and Grade One level). Reading and language arts progress was evaluated using the DRA (SKs only), “spot checks” with leveled readers, assessments of letter recognition, sound and letter connections, and phonetic spelling via work samples (journals) that were sometimes published, one-on-one observations (mainly with JKS), checklists, and the teacher-devised “*assessment kit for Kindergarten*” (random upper and lower case letters, sight words).

Activity centres (located in the adjacent room) on the observation day included snack, art, camping, space, and Lego. Teacher 6A remained with the reading/writing/drawing group working on their journals (“at the beach ...” theme) for 30 minutes in the main classroom, after which students were all gathered together for circle time (teacher read aloud). Students were provided with a “*planning card*” (slips of construction paper with their name and picture) which they used to “reserve” a spot at a particular activity centre; Teacher 6A found this strategy “helps to decrease the anxiety ... without those, it would be very difficult” to group students;
although “at Kindergarten they are so used to being called” by name to complete an activity in small groups.

Classroom management routines remained generally the same as the Fall Term with songs, choral clapping, snapping, and 5-point checks as the main strategies used to gain students’ attention; running records from the observation day further noted switching classroom lights off as an effective technique utilized. Students continued to follow their assigned seating based on the colour squares on the carpet, although at this point, they were referred to by names rather than just colours (e.g., blueberry, strawberry, shamrock squares).

Although Teacher 6A believed that typically the “developmental gradient difference is huge” in Kindergarten, in “this grouping, the children don’t stand out to each other” in terms of ability. Formally identified children with special needs followed their Individualized Education Plans (e.g., visual charts, timers, and “wiggle seats”) and the teacher enlisted the assistance of parent volunteers, student teachers, and Education Assistants with the dual room structure of the classroom, which provided the teacher more time to spend with individuals and small groups “that I feel need the enrichment and need to be pushed along.” “Very gifted” students were provided with additional challenges (in a small group), while struggling students were given additional time with the teacher “still working on some of those questions areas with them”.

School 6 and the Board had not recommended particular strategies for accommodating student variation in reading; however they were “very open” regarding the DRA: “only use the DRA for kids that we feel are ready. We’re not supposed to place a child in that situation unless they are ready for it.” Teacher 6A ensured that all SKs entered Grade One with “their DRA folder and highlights of all their reading skills”; if DRA was deemed inappropriate, checklists were used instead.
Teacher 6A used reading groups for only SKs twice a week (Tuesdays and Thursday; approximately 10 minutes per group) and “spending a little more time with my lowest group.” Groups were formed based on teacher observations (“I listen to them read to me, I do a little screening ... a running record”) focusing on students’ fluency, use of punctuation, and “reading for meaning.” All SKs fell within one of 3 groups: “younger” = decoding and phonetic skills with “very easy books”; “middle” = read-aloud and reading strategies; and “older” = discussions to assist children “make the connections” (“I found that I have some kids who can decode and they can read way above grade level but they don’t really understand what they story is about”). Changes to existing groups were solely based on student reading ability as assessed by the DRA; “mini data walls” were used to keep track of each student’s progress and corresponding “natural groupings.” Teacher 6A enjoyed the “flexibility” offered by Kindergarten students, believing that they are “less competitive ... and don’t judge themselves or others in the same way as when they get older and feel insecure” and furthermore “I don’t feel at this stage, their parents are pushing them”; all factors students “suddenly” experience in Grade One.

3.1.1.7. Teacher T7A.

Fall Term

Teacher7A’s classroom consisted of 21 students; 10 males, 11 females; all SKs; many English as a Second Language (ESL) and English Language Learners (ELL); and “at least one with special needs – Down Syndrome” that the teacher felt was “not getting the right speech and language support, and missing the window of opportunity.” She had taught for seven years, half-time in SK and half-time in Core French.
The teacher evaluated students as being “pretty ready” for school “because many had developed some pre-reading skills. However, vocabulary was lacking because there are many ESL/ELL learners.” She further elaborated that while “most are not ready for reading, they are ready for pre-reading such as talking about pictures, flipping pages, looking for sight words, and practicing sounding out some words.” According to her, there were only two students ready for reading at the time of the interview. In order to assess students’ readiness at the beginning of SK, Teacher 7A “spent 2-3 weeks watching, observing, listening, conducting little diagnostics (informal) such as letter names, calendar routines, patterning, counting, phonics, phonemic awareness – focusing on concepts of print and letter sounds/names.”

The teacher’s goals by the end of SK were to instill concepts of print, pre-reading skills, and recognizing page structures (i.e., sentences, words, spacing, etc.) in her students, and she anticipated that all students would meet these goals. Teacher 7A did not make use of a leveled reading program “but book bags go home nightly with grade-appropriate books (not specific to student’s ability though; rather according to median level of class. The books that usually go home are books that have been read previously on the carpet or in other ways for more familiarity. Jolly Phonics-based reading books are given to the lowest group.” On the observation day, students had been assigned to one of three centres: identifying shapes by searching through flyers, cutting them out, then sorting them on a worksheet; adding ideas and pictures to the ‘Snow is Everywhere’ poem; and looking at a picture and using invented spelling to write about the picture. Students rotated between the three centres on a daily basis and were allowed to play freely once they had completed their assigned activity. Other than working in small teacher-assigned groups for the centre activities, the class was instructed as a whole group.
According to the observation day, Teacher 7A’s students demonstrated an understanding of expected classroom comportment by raising their hands to speak and sitting and singing quietly while waiting or during transitions. The teacher consistently used songs for transitions, prompted students to respond using complete sentences, and made use of student helpers.

The teacher anticipated that 16 of the 21 students would be able to reach the additional goals of phonemic awareness and knowing all of the letter sounds. For the five students not expected to accomplish these additional goals, Teacher 7A would “pull them out and focus on the primary sounds.” Students would look at classroom books then identify and write out sight words after which they were instructed to pair up and share/read the words that they had found. Teacher 7A made use of phonetic hints to aid students in activities. For students at higher ability levels, her “expectations [were] very different. Higher students [were] given extra opportunities to answer higher-order questions, there [were] greater expectations for journaling, and [they were] usually asked to model for instruction.”

The teacher “always used ability groups in my teaching for guided reading, intervention programs for lower groups, and for focusing on specific skills. I find it incredibly beneficial, but the amount of individualized time is not enough.” She planned to “start some guided reading in March with four groups, in which I would pull for 15 minutes during play time.”

Spring Term

Teacher 7A estimated that “almost everyone knows all their letters and letter sounds. Out of 20 possible readers, there are probably three that don’t have their letter sounds. Most children have a medium sized-word vocabulary. Maybe 8 – 10 are decoders.” The teacher kept an anecdotal record sheet “each time we [did] an activity” to evaluate each student’s level of independence (i.e., independent, some assistance required, or complete assistance required).
“This year we have used the observation survey – a pretty comprehensive analysis of letter sounds and concepts of print.”

The sight word search activity at the beginning of the day on the carpet was extended to include a whole group component of reading the found words out loud and recording their frequency in a chart (integration of math), then having students demonstrate their understanding by using the words in sentences.

Classroom management routines remained generally the same as the Fall Term whereby the teacher encouraged students to use positive language and comments with each other. She allowed the children free choice of the activity centres using a Popsicle stick sign up system that the students were familiar with.

In whole group learning, the teacher “aim[s] towards the low-middle range and then [has] extensions available...you show a developmental continuum, show least difficult things first and then proceed in a step-based progression to the most advanced work. Use language such as ‘challenge’ to help students understand that it is something that not all students will be able to do.” Teacher 7A found that “offering extensions helped a lot.” The teacher tried to “approach reading through various paths (e.g., sight words, beginning letter sounds, independent reading time, working with word families)” as a strategy to accommodate the variation in students’ reading. She indicated that there was nothing standardized in terms of school or board advocated accommodation strategies – that begins in Grade One.

Teacher 7A acknowledged grouping students by same ability because “I found that same ability groupings don’t allow kids to become as frustrated as they do in mixed abilities – reduces anxiety and frustration, allows their self-esteem to remain high, effort level will be continuous and not artificial, they have no need to compete because they are working with
others at the same level. I haven’t ever observed that student behaviour is ever affected by grouping.” While there was “no absolute criteria” for how children were assigned to same-ability groups “because there is no standardized assessment” the teacher indicated creating “ability groups in mid-October based on observation, based on ability compared to the teacher’s objective for the lesson and compared to personal rubric standards.” Groups were kept in sizes of four-to-five students – “small enough to give attention and big enough to not feel that they are working in pairs” – and “pretty dynamic – kids are moved around based on academic and social need, for additional challenges or because they need further support.” Students received one-on-one attention within the same-ability group activities “depending on need and what is being taught/learned”. Teacher 7A was not able to use guided reading groups during the academic year of study “because of a specific student (with Down Syndrome) needing constant supervision – [guided reading] requires a largely independent class.”

3.1.2 Grade One classrooms (T1B-T6B).

3.1.2.1. Teacher T1B.

Fall Term

Teacher 1B’s classroom consisted of 22 students; 8 males, 14 females; “five turning 6 [years old], and then rest will turn 7 in the spring”; and one student formally assessed with a physical disability (ocular) receiving continual support from the Special Needs Assistant as well as School 1’s special education teacher (one period every day). Two other students were also receiving “extra support informally,” in addition to a “few high-flyer readers” who obtained assistance from Teacher 1B, volunteers, and the school librarian, with outside classroom-support. The teacher had taught for 10 years and began working at School 1 the previous year.
According to Teacher 1B, “Grade One is really hard for most SKs coming in”; “half were keen and ready to go into grade one; the other half were really hesitant” and when parents “came in, the issue was more about settling rather than academic”. Therefore steps were put into place to prepare both students and parents for Grade One, including meetings in June; “education” regarding transitions and the overall structure of the day; posting information and stop/listen activities; and practices of general routines. Readiness was assessed using general observations (September), DRA (October), and writing samples completed on a daily basis that focused on finger spaces, capitals, letter sounds.

Teacher 1B’s literacy goals were for students to read and write independently, enjoy reading (“the love of reading can only be modeled”), take risks, and meet Board expectations of DRA reading achievement level 16-20 (correlated with ages 6-8, Grades One to Two). Teacher 1B did not expect all students to achieve these goals by the end of the year, she also didn’t believe “that [standardized achievement level] is the be all and end all.” Besides guided reading leveled texts and borrow-a-book routine, a specific reading program was not utilized, although students were exposed to “over 5000 books at their own leisure: there are always books out but I don’t have a program.” Students were encouraged to “choose whatever book they want on Fridays” (selection included fiction, comic books, magazines) as Teacher 1B was not “100% loving leveled texts.”

During the observation day, students were noted as motivated and knowledgeable of their roles and the expectations, “free to move around the room but stayed productive” and “worked well independently” at their “unassigned work areas.” Classroom management routines were “clearly in place” with “quick and effortless transitions” reinforced by the Education Assistant (EA). During the one-hour observation, Teacher 1B used time reminders
(e.g., “five minutes until recess”) and turning off the lights to gain students’ attention. Verbal praises (selecting “go to guy” for the lesson), gestures, and direct requests (e.g., asked students to refrain from calling out) were used as means of behaviour management while modeling the assigned activity along with the EA (writing a thank you letter to a loved one).

Accommodations for those struggling with first grade included “immediate scaffolding”, “less differentiated activities and more time,” after-school support, and if required, recommendation to the school team. Those at higher ability levels were anticipated to meet higher expectations (e.g., reading chapter books or books from higher leveled “browsing bins”). EA, volunteers, and the librarian were seen as valuable “extra bodies”: “I will have volunteers go out and teach how to read chapter books or the librarian has worked with the high-flyers.”

Teacher 1B used groupings “informally”: “I might try to grab a group that are at the same level, but it is more to look at a concept like punctuation or looking at pictures to solve the problem. So it’s more like a mini lesson or a teaching moment. I would rather have them read to me individually, but time doesn’t allow for it.” Students participated in activity centres in mixed-level groupings, where Teacher 1B could “individually differentiate for their needs.”

Spring Term

With the DRA “exit level” for Grade One set at 16, Teacher 1B’s students fell into one of three groups: non-readers (levels 8-12), average (levels 16-18; “bulk” of the students), and above expected average (level 30; approaching Grade Three expectations) readers, with those who had started out as non-readers (3/4 of the class) experiencing “the most growth.” Reading and language arts progress was assessed using the DRA (“for the kids that are lower, we do DRA more than twice a year”), and observations of reading, spelling, and journal entries
(focus on the use of nouns and verbs and whether students “have used the skills we taught them”).

Similar to the Fall Term, leveled readers (“which I wasn’t always a big fan of”) and borrow-a-book routine were utilized; however Teacher 1B further “focused on reading as homework” given “Monday, Wednesday, and Friday … but they have one week to complete it.” Teacher 1B hoped to increase the use of guided reading (“my group was not strong so it was hard to do reading groups; had I started it earlier it would have been a success”), as well as shared writing.

Teacher 1B enlisted the assistance of parent volunteers (twice a week), EAs, as well as student teachers and ECE students, insisting that “in Grade One, the key thing is the more bodies the better; you don’t miss anyone.” Struggling readers were often paired up with “EA or student teachers to be reading everyday … reading with them as much as we can.”

Accommodations further included: modified workload, number of centres expected to visit, borrow-a-book at the appropriate level sent home every day, and scribes. Similar to the Fall Term, activity centre expectations were modified “depending on the individual” and were organized by subjects based on curriculum expectations. Teacher 1B recalled the use of Reading Recovery in a previous school, expressing “I am a big fan of that”, however “intervention for struggling readers” varies “school by school”; this program was not available in School 1.

Teacher 1B described one-on-one reading instructions as “utopia … but when you have a class of 22 kids, there is no way you can do that”; hence instruction mainly occurred in small groups and even more frequently with the whole class: “teach a strategy, send them off
to work on it, and then grade the kids who are working on it allowing the kids to come into their strategies developmentally with time, for example reading with expression.”

3.1.2.2. Teacher T2B.

Fall Term

Teacher 2B’s classroom consisted of 19 students; 7 males, 12 females; “all born in 2001”; and “a few visible minorities.” She indicated that there were no children in the class with special needs: “well, just minor special needs, for example in terms of just their reading readiness stage or lower reading ability ... but they all have special needs!” The teacher had taught for more than 25 years, everything from Kindergarten to Grade Six, though “most of my teaching has been in the Primary Division.”

“Most” of the students were considered to be well-prepared for first-grade learning – “I’ve seen a lot of progress from the beginning of September to now, so most of them were prepared, but then again attending school all day was a bit of a physical strain for them.” Students’ readiness at the beginning of Grade One was assessed with the DRA in late September/early October, as well as using observations, testing of basic sight/Dolce words, and informal assessments of reading and writing skills.

Teacher 2B’s literacy goals by the end of Grade One were for students to be: “writing their own stories; for example, be competent writers and be reading at a level 16 or 18” but did not anticipate that all students would meet these goals. In terms of using a reading program, she used “everything that’s available to us, from the leveled books we have, to borrowed books, to my own private collection...books on tape.”

According to running records from the observation day, Teacher 2B’s students demonstrated an understanding of expected classroom comportment by raising their hands to
speak and sitting and listening attentively when the teacher spoke. The teacher occasionally used rhythmic clapping for transitions. The morning was structured, with no free play other than the 20 minute morning recess. Students sat at shared tables for table and group work, and on the carpet for calendar and morning message. Teacher 2B made use of daily routines for entry and recess, e.g., lining up and submitting homework to the homework bin during morning entry.

For students at higher ability levels, Teacher 2B increased expectations by using higher than average level texts with questions, asking students to “write their own questions, or they write questions then the other children have to answer them (about texts) … you can use reading logs, reading journals, and so forth…throw in dramatizations!” For students deemed not ready for Grade One, Teacher 2B: “review[ed] the letters of the alphabet, the phonemic sounds by testing whether they can recognize the letters on a random chart with random letters, and asking them to write certain letters.” She also scribed for students and then asked them to copy what had been scribed and try to write the sounds they heard. Other strategies included rhyming words and games, matching sounds and letters, the Reader Rabbit program (an educational computer software featuring a variety of literacy-based games), and building up sight vocabulary.

The teacher grouped students by ability in reading, “for me it’s the most successful…children need to be reading at their level…you never put a child in a level that’s way too difficult, that just leads to frustration and they get turned off reading.” She indicated using mixed ability groups for project work, if there is a “common interest to the group, and then you’ll have different levels, but you’ll have the stronger readers and the stronger writers,
and the children who have the ideas but don’t have the ability to write them down, so they help one another in a sense.”

**Spring Term**

Teacher 2B estimated that the average reading level of the class during the Spring Term was “probably a [DRA] 16...some students are reading at 20 or 22 independently, another group at an 18 or 20, then there is a group at 14, and the other one is struggling with 10. So given the fact that there are only two at 8 or 10 and the others are 14, 16, and 20, I’d say the average is roughly 16.” In addition to assessing students in the Fall using the DRA, Teacher 2B made further use of the test in an informal manner “in the middle just to see where they are”, in addition to a second formal administration in May/June. School 2’s three Grade One teachers met each term to assess student writing samples collectively, applying rubrics they had devised for this purpose.

The entry routine included the students beginning the day in their reading groups; the teacher explained that this is “when they’re freshest and for me that’s the best time.” An additional benefit to beginning with the reading program is that “the parents realize that we do reading first of all and I impress upon them that reading is very important ...so it’s an incentive for them to get to school on time.” The teacher acknowledged having individualized reading instruction on a one-on-one basis in the past. “I kept individual reading records and charts and I used my ‘borrow a book’...but that takes a lot of work. But now I do groups because I have large clusters of children reading at the same level and it’s just easier to handle a group than individually.”

Classroom management routines remained generally the same as the Fall Term.
For accommodation strategies, Teacher 2B provided follow up activities to reinforce and strengthen “skills that are weakest” (e.g., using Word Bingo, phonics games, and the Reader Rabbit program). She indicated that it is important to recognize which strategies each class best engages with; this class, for example, “really enjoys drama, so for retell after a story, they often like to put on a puppet show or dramatize it in some way – ‘Readers’ Theatre’.” In addition to ‘Readers’ Theatre’ for retelling, the teacher carefully selected texts appropriate to “their reading level” and introduced vocabulary from a text as well as a walkthrough of the book prior to reading it to the class. School 2 did not advocate any particular accommodation strategies though the vice principal ran an informal reading recovery type of program with struggling readers for one period per day.

When grouping students by same ability, Teacher 2B used the absolute criteria of DRA testing and aimed for no more than four groups. She moved students from one ability group to another “as they pick up the language and the reading skills…they move up or down, as the case may be…If I see that a 14 is too difficult, then I’ll move them to a 12.” While the teacher said that “they don’t seem to mind” being moved to another reading group, Teacher 2B also indicated that “the better readers know who the poorer readers are and they kind of have bragging rights or they intimidate them. I’ve also noticed self-esteem go up when a poor reader is able to read the text successfully.”

3.1.2.3. Teacher T3B.

Fall Term

Teacher 3B’s classroom consisted of 17 students; 9 males, 8 females; and one ESL student believed to have a learning disability (although not formally diagnosed) receiving
additional support, something the teacher called “diagnosis-free help ... which is great”. She had taught Kindergarten for seven years and spent the last three years teaching Grade One.

Teacher 3B perceived students to be “middle to high” in terms of preparedness for Grade One. This class “was meant to be a split class so higher students are independent”. Readiness was assessed using the DRA; implementation and score submission were expected for all primary grades at School 4. Furthermore, the Dolch word list was used to evaluate sight word identification, with students expected to have “letter consolidation.” Worksheets, student summary reports, informal observations and individual conferences (September) were also utilized. Teacher 3B explained that she “knew [students’] levels during the first week, based on their writing ability in their journals.”

The teacher’s literacy goals were based on the “exhaustive” and “definite” curriculum expectations, although they were “modified”, “adapted” or “changed as necessary” depending on students’ developmental level and skills (e.g., fine motor) in order to “teach to where they are.” She expected 75% of her students to reach Level 3, 20% Level 2, and 5% Level 1 and described the whole class as a “pretty high group, other than one ESL and other specific students.” A heavy emphasis on literacy was evident during the observation day: SQRT (‘super quiet reading time’), self-selected reading (from designated leveled book bins), one-on-one reading (parent volunteer, ESL student and 2 other students with teacher – Teacher 3B used these opportunities for “informal assessment of reading skill ... jotting notes after each student” had finished reading), choral reading/singing (morning message, holiday song), read-aloud, journal entry, spelling patterns, blending/segmenting (using magnetic letters), and reading groups. These groups consisted of four to five students (‘Dolphins’, ‘Werewolves’, ‘Horses’, ‘Killer Whales’) and sat with the teacher for shared reading which included
discussions about text, identifying and connecting words from text, organizing story events into temporal order, and worksheets.

Observation day records noted students as “working very well, needing little reminders from teacher to focus” and effortlessly moving through “obviously established routines.” To organize and focus student attention, Teacher 3B provided specific instructions and used “job lists” (e.g., on the board: tasks to complete: “1. Spelling, 2. Journal, 3. Reading Group”), performed regular observations (“circulating the room to observe if students are on task”: checking work, answering questions), and responded to individual student needs (“teacher helps one student select a text because of lack of motivation”). One case of behaviour management observed was Teacher 3B “calling over one student to tell him, ‘I don’t want you to leave your seat again’ because he was wandering around other students reading independently.”

Accommodation strategies included one-on-one instruction, modification of expectations and to a lesser extent, tasks and materials (e.g., “harder questions for higher levels”, additional tasks: “little booklets”), differentiated instruction, independent reading, and ability groups (e.g., same-ability reading groups).

Teacher 3B relied heavily on reading groups which were in their third week of implementation at the time of the interview (the previous year, groupings were not established until March, but this year’s “smaller number allowed for earlier groupings”). Each group met with the teacher twice a week, while completing independent “follow-up activities” on remaining days; however “reading groups did not take away from one-on-one conferences”. Although the teacher believed “for reading groups to work, you either need additional support or an independent class,” no additional “adult support” was reported at this time of the year.
A volunteer was expected in January, making groupings “much more feasible” during the Spring Term. In Teacher 3B’s past experiences with same-ability groupings, she found them “overall very effective” and “most effective with independent learners and if not, greater human resources [such as] monitoring and supervision” are required.

**Spring Term**

Teacher 3B described students as “average level B/B+”, ranging from “mid-SK (1 boy) to late Grade Two/early Grade Three – several are well into Grade Two levels in reading achievement”: “very high group in general.” Reading and language arts progress was assessed using DRA running records and comprehension checks required at School 4 (for junior grades: Comprehension Attitude Strategies Interests (CASI) \(^6\)), informal observations (story telling using pictures/words, word study, vocabulary within texts), writing (portfolio, journals, class narratives and stories, subject integration (e.g., science, social studies), graphic organizers, story maps and webs, and by listening to students read aloud (focus on fluency, intonation, and expression).

Reading instruction was implemented both one-on-one and in small groups: “one by one is best, but not always feasible; small groups are more realistic.” Particular attention was focused on reading comprehension (“because this is a high group for decoding, but some have weakness in comprehension”), “schema work,” Debbie Miller strategies \(^7\) (“focus for primary

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\(^6\) CASI comprises of 5 assessment elements (Reading Interviews; Reading Attitude Survey; Reading Interests Inventory; Reading Passages and Questions; and Student Self-Assessment) which aim to measure students’ “approach to reading, values, attitudes toward reading, reading interests, level of comprehension, knowledge and understanding, inferring, creative/critical thinking, conventions of written text, ability to explain, support and apply what has been read and making connections among texts, personal experiences and life situations” (Gibson, 2007 as reported by Hastings & Prince Edward District School Board, 2008, p. 4).

grades”), and the “pre-writing process.” Teacher 3B revealed that “children have moved up in their [leveled] book bins,” and that the ‘Werewolves’ “are the weakest of the four ability-based reading groups.” During the Spring observations, teacher mainly worked with this group, whereas in the Fall, all four groups spent time with the teacher). Activities completed during this time with the teacher included identification of concepts of print (e.g., title, chapter headings), comprehension questions, and text-to-self connections (Debbie Miller).

Classroom management routines remained generally the same as the Fall Term. Teacher 3B was also observed turning off the classroom lights and organizing students by allowing the quietest groups to transition to other activities first.

Accommodation strategies for “weaker students” included: “more one-on-one attention, more time spent with the teacher, more hands-on simplified process-type work, peer activities with stronger students,” scribing, and where appropriate, accommodations based on Individualized Education Programs (e.g., “lower writing volume expectations”). Teacher 3B also saw the usefulness of mixed-ability groups: “peer tutoring, mixed groupings seems to work well, because stronger students can help weaker students – mixed groupings is great because each student excels at something, so it is essentially a pool of talents.” School 4 and the associated Board “emphasized using assessment to dictate teaching, to teach from the point [students] are at, and more and more ongoing assessment”; Teacher 3B found “this strategy very useful, although it requires more work.” The Board particularly “encouraged the use of same-ability groupings in reading” as well as the “borrow-a-book program” for accommodating student variation in reading.

Ability-based groups were still prominent in the Spring Term as they provided the teacher with the ability to “target and address common needs and individual needs,” “lots of
opportunities for conferencing” and ultimately “tailor lessons based on what groups need”; “hence they are very effective.” Four ability groups (each with four to five students) were formed based on the “reality of scheduling – logistics” as well as formal and informal assessments including DRA results, reading performance, and writing ability. Groups met with teacher two to three times each week (according to observation days, groups spent between 8-16 minutes with the teacher); given additional adult support, the teacher was able to meet with all four groups, otherwise, she was only able to meet with one to two groups (overall the lowest group spent the most time with the teacher). Tasks completed in groups included: shared reading, worksheets, discussions about texts, and comprehension-based activities. Students only “move up, they never move down” as their reading ability “surpassed the group expectations.” Teacher 3B believed that although students were “intuitive about some groups being higher than others,” they were “overall relieved about being in a group based on similar ability” and that being in such groups helped “build confidence” as she “emphasized that everyone goes at their own pace.”

3.1.2.4. Teacher T4B.

Fall Term

Teacher 4B’s classroom consisted of 18 students; 9 males, 9 females; with one ESL student born in Canada, and one formally identified student with special needs ("borderline autistic with numerous learning disabilities") receiving additional support in the morning outside the class and an in-class personal assistant in the afternoon. She had taught for 18 years, spending the last five years teaching Grade One or One/Two split at School 4.

The class overall was described as a “fidgety somewhat behavioural group with a lot of young boys” and “a little bit low” in terms of preparedness for Grade One. Readiness was
assessed using observations, and early reading assessments including the DRA; “class scored below norm: only four kids within average, four above, and the rest below.” Those below norm were “reassessed with the DRA on an ongoing basis.”

The teacher’s literacy goals were for students to meet the “curriculum expectations: writing simple proper sentences,” and read at the expected DRA level. All students were anticipated to “meet goals in writing” with the exception of the student with special needs; however, for reading, the teacher believed “1/5 will not meet goals – really low this year”. Her reading program was “in its beginning stage” at the time of the interview and included: “a book room with leveled reading coordinated to DRA” (10 minutes/week with teacher due to “lack of resources”), independent reading and borrow-a-book using leveled bins (“ongoing reassessment for reading levels”), and ability-based reading groups (~5 students/group).

During the observation day, calendar, morning message, circle time (teacher read-aloud), journals (correcting sentence written by teacher on the board – e.g., for grammar, concepts of print) and math activities (worksheets) made up the majority of the morning.

Classroom management strategies included verbal reminders of expected behavior and highlights of model behavior (e.g., “I sure like the way --- is working today,” “asking ‘neater’ students about their strategies,” time announcements (e.g., “five more minutes”), count downs (e.g., “teacher and students count down as everyone moves to the carpet”) and selecting students based on quietness. On the observation day, with the exception of instances where the teacher called over students for individual “chit chats” about their progress or to evaluate their final product, students were noted as engaging in “self-directed learning, consulting each other at their table groups” – once assigned tasks were completed, students finished
assignments from previous days or coloured in their journals. Student seating changed monthly “based on social compatibility.”

The teacher expressed having “different expectations for every student.” Accommodation strategies for students deemed not ready for Grade One included “slow pace” reading instruction to allow them the opportunity to understand the content in order to be successful, and choosing “lower students to answer easier questions and vice versa, working at own levels in journals, reading at own level, reading groups, seating according to mixed-ability.” Furthermore, parents were encouraged to extend strategies at home (extra books sent home), and at the end of the year, “weaker students” were “recommended to attend a half day July summer program.” Learning needs of students at higher ability levels was accommodated by higher expectations in reading (higher ability reading groups – “go through more books,” spend more time independently) and writing (journals), homework (“borrow a book at own level to read and respond to”), “higher order discussions” and “challenged more with difficult questions.”

Students spent every Wednesday “working on one book for a few weeks: read aloud, read to themselves as best as they can, read it all together, discussions, repeated reading”; once material was “mastered,” groups read their book to the whole class. Teacher 4B expressed the importance of additional adult support, stating that groups “can’t happen without an extra adult in the room”; “volunteers take over conferencing with the rest of the class so that teacher can work with reading groups” (~10minutes/group). This was the second year Teacher 4B grouped students by ability; this instructional practice was “supported” by a school workshop and “reminded and encouraged by school principal.” The teacher concluded that she “will continue using grouping because it works.”
Spring Term

Although most students were described as “around B-”, Teacher 4B’s class consisted of a “huge range in ability” from JK to Grade Four; overall they were described as “pretty average, slightly low.” Progress in reading and language arts was assessed using the DRA for reading, and checklists for writing. Ministry expectations were “broken down for each term” with “concrete assessments preferred,” including writing tests (based on checklists), dictated sentences, and rubrics.

Although individualized reading instruction was implemented both in groups and one-on-one, the latter was “dominant” in Teacher 4B’s class. Students “practiced leveled books independently and with parent volunteers, picking books for independent reading at their own level,” while in the afternoon, they read “one at a time” during one-on-one conferences with the teacher. Classroom routines remained generally the same as the Fall Term: calendar, morning message, independent reading, journals (correcting sentences written by teacher on chart paper – e.g., for grammar, concepts of print) and math activities (worksheets). Teacher held “conferences” with students, mainly evaluating their completed work and reminding them “if they are having difficulties, to ask a neighbor.” Once assigned tasks were completed, students finished assignments from previous days, read independently, or coloured in their journals.

Classroom management strategies remained the same as the Fall Term.

One-on-one conferencing, followed by ability-based reading groups were viewed as the most effective accommodation strategies by Teacher 4B. School 4 and its associated Board encouraged “accommodating for diversity, ongoing assessments, appeal to learning types,”
same ability groups, and for the last few years, workshops on using DRA as a result of using reading groups” as strategies for accommodating student variation in reading.

The ability-based reading groups formed in the Fall based on “observed ability,” needs, and DRA performance, continued operating on Wednesdays, with Teacher 4B spending ~10 minutes/group. Students who “improved at a faster rate than the rest of their group” were moved. Teacher 4B viewed ability-based groupings “useful for instruction,” increasing students’ self-confidence allowing them to “feel successful” and “improved their motivation to read,” and although it was “stressed that we are all different, and good at different things,” Teacher 4B “worried if the lowest group knows it.” She noted that “a few parents did not like” groupings, believing they “hinder progress” making students “feel self-conscious.”

3.1.2.5. Teacher T5B.

Fall Term

Teacher 5B’s classroom consisted of 21 students; 12 males, 9 females; with one student officially identified with an Individualized Education Plan attending a remedial behaviour program, while another was in the process of being assessed. She had taught for 24 years, mainly at the primary level.

Teacher 5B perceived her class to be overall “pretty good” in terms of preparedness for Grade One: “the Kindergarten program at this school really prepares them for first grade. Any student who struggled with the pace of the program was flagged in Kindergarten.” Using student records from Kindergarten, Teacher 5B further assessed readiness via students’ knowledge of the alphabet, word lists (e.g., Dolch sight words), and running records (for reading). She hoped that all students would be able to read by the end of Grade One, “but that
is not always the reality,” and hence she anticipated “there will be for sure two students who will not be reading by the end of this grade.”

Teacher 5B’s literacy plan was to “assess, monitor, and enrich” by “tapping” into students’ interests and working with their strengths to help them “feel unique with their skills.” Furthermore, attempts were made to make “the class inviting and colourful,” provide students with a love for reading by giving “them highlights throughout the year” (e.g., “lots of art” with language extensions), and “let them feel successful in something and not focus on reading and assessment.” No specific reading program was implemented as the teacher explained that “there is not a universal program for the whole school”; she used “whatever is available” including library books and personal collections in following a balanced literacy approach. Class time was divided between whole class, paired (reading), and small group (time spent with teacher) activities. A guided reading program was to be implemented in the near future.

Calendar and other routine morning exercises (e.g., circle time, morning message) were observed in Teacher 5B’s classroom. Students sat on “designated seats” (both on the floor for whole-class activities and desks for “seat work”) and were noted as “on task” and compliant with classroom rules (e.g., sitting quietly, raising hand to ask/answer questions); however during “freespace,” students were “allowed to sit where they like”. Teacher 5B used various strategies for behaviour management and focusing student attention: verbal praise (for correct responses, acceptable work quality, completing assigned tasks), point system (e.g., 2 points for the first group ready for transitions), games (e.g., permission to leave according to the first letter in students’ names), choral rhymes, time announcements (e.g., “five minutes to finish any work not done”), physical separation (sending student to his seat for interrupting the
class), and discussions on “appropriate behaviour/words initiated by student telling on another student.”

Accommodation strategies included continual observations of student progress (typically done in smaller groups), reviewing and reinforcing concepts, enlisting the assistance of parents and older siblings (e.g., to go over the student’s homework with them), keeping students in for recess “to continue to work on a lesson and get some one-on-one time” with the teacher, task modifications, scribing, individualized expectations (e.g., “more sophisticated output from more advanced learners” including more complex worksheets, or higher expectations of work quality), enrichment activities (e.g., character sketches with expectations ranging from word descriptions to sentence descriptions of the selected character in multiple settings), “homework reading program” (students “take home just right books that they can read on their own and get the log signed”), and guided reading (which had not been implemented at the time of the interview).

Teacher 5B “definitely” used same-ability groups, ensuring “to group as close as possible to same abilities.” Students were “moved between levels once they improved so they are always reading appropriate books.” Mixed-ability groups had also been attempted, although the teacher noted that they “didn’t work” for guided reading. Paired reading however, was commonly used with “stronger readers” paired “with a weaker reader.”

Spring Term

Unfortunately Teacher 5B chose to withdraw from the study during the Spring term, citing a busy schedule. However, her Fall Term interview data have been used as appropriate when describing mean results for the group of participating Grade One teachers in this study.
3.1.2.6. Teacher T6B.

Fall Term

Teacher 6B’s classroom consisted of 22 students; 12 males, 10 females; one had “just started to receive some special education support” due to “little development” and concerns regarding his family history (father and sister diagnosed with learning disabilities). She had taught for four years; half spent at School 6.

Students were “on the whole, quite prepared for Grade One”: all had attended two years of Kindergarten (most with an additional year spent in pre-school) and nine were reading at a “Grade Two or higher level.” Teacher 6B described students as “experts so far as knowing routines and how to behave in school and just generally having a sense of it” and “everyone knew letters, sounds, names” (including the student with special needs). Readiness was assessed using the DRA (“because we have to”), a phonemic awareness inventory, and a one-on-one math interview (“an older version of the Number Knowledge Task”).

The teacher’s literacy goals for her students were for “everyone to see themselves as readers and writers, feel confident that they can approach a text even if it’s strictly beyond their reading level, find the joy in the love of reading and writing and everyone makes progress from wherever they are so that they have accomplished something.” Teacher 6B expected all students to meet these goals, “I mean even from the beginning of the year I can see progress”; however the teacher went on to express frustration regarding the Board’s expectations: “it’s so hard being in this Board sometimes because despite the fact that they have made huge progress for themselves there are finite expectations and they talk about differentiating instruction, yet by the end of Grade One, ‘we want everyone at this DRA level’ and you’re [as the teacher] sort of going: ‘those 2 things don’t really go together, right?!’ Progress does not necessarily mean that they’re going to hit that, but as long as they’re
moving forward, I'm happy and they're confident.” Teacher 6B used an eclectic reading program, “pulling things from everywhere,” including: Scholastic Early Years Literacy leveled readers (for guided and shared reading, and the listening centre), science kits (to “tie themes together”), books on “systematic sequential phonics,” Jolly Phonics, Handwriting Without Tears, as well as the Debbie Miller, and the Lucy Calkins Project.

Classroom management strategies in Teacher 6B’s class included established routines (e.g., “everyone show me 5”, “look, stop, and listen”), verbal encouragements (e.g., “good job!”), additional attention to “distracted students,” and the use of a bulletin board in front of the classroom outlining expected activities for each of the five colour groups – on observation day: Red group = ‘Energy’, ‘Word Games’; Orange group = ‘Just Right Reading’; Yellow group = ‘Poem and Song Book’, ‘Poem Put Together’; Green group = ‘Letters’, ‘Energy’; and Blue group = ‘Word Family’. The class was divided into the colour groups “based on personality; not straight ability” – Teacher 6B described some of the groups: “Green = industrious; Blue = boys, like to read non-fiction; Orange = girls, bossy.” On the observation day, the student teacher carried out some of the morning activities (food groups, energy unit); as well, Grade Five Reading Buddies completed a newspaper treasure hunt with the class (14 buddies in total, each with 1-3 partners). Groups were sent into rotation: Blue group = listening centre: read an assigned book together; Green group = hanging word wall: make sentences based on high frequency words (written out on small flash cards); Yellow group = desks: read a poem about the sun, circle words, and draw pictures based on the reading; Red group = with student teacher: work on a food groups worksheet; Orange group = carpet: self-selected reading, followed by a retell activity (favourite part of the story, or favourite character) – after ~10-15 minutes, groups were rotated. During all group rotations, Teacher 6B floated around to different groups to provide direction and support.
Accommodation strategies included ability-based groups with different expectations depending on the groups (e.g., ranging from drawing pictures and deciphering sounds to writing full sentences), and review of foundational concepts (all Jolly Phonics sounds, sound charts).

Teacher 6B grouped students “depending on what I’m looking for on what the tasks is”; for example, groups were not utilized for working with non-fiction texts (e.g., locating table of contents), while for guided reading and writer’s workshop, “they’re pretty leveled, except tweaked by personality because that way when I’m conferencing with them it’s easier: you can sort of deliver one message often to two of them.” In the past, Teacher 6B grouped students mainly for mathematics activities, and overall though that “there are definite benefits to it because at the end of the day, you’re trying to meet everyone’s needs so it’s easier if the needs are more similar”; however the importance of “balance” was also emphasized: “you don’t want the same kids working together for everything and then sort of the perception that ‘oh that’s the group that’s not so smart’ or you have to balance it with personalities and just different dynamics, but it definitely can work: I think it’s dependent on activity.”

**Spring Term**

According to Teacher 6B, all students “moved forward” and “progressed” by the Spring Term; however “the range moved with it” with “several kids excelling on to Grade Four level and one poor little guy who is still kind of mired in Kindergarten”. Reading and language arts progress was assessed in “lots of different ways”: “Board-mandated” DRA, individual reading conferences to assess students’ decoding and comprehension strategies, questions and discussions following shared reading activities, as well as writing conferences and work
samples (“are they making use of strategies like sounding things out or using words that rhyme or word wall words?”).

Reading instruction occurred mainly in groups, although depending on student interest, motivation, and engagement (“they have to like it to want to do it”), individualized activities were also in place (e.g., fiction vs. non-fiction books); however one-on-one instruction was described as “time consuming” and challenging as the teacher has to “figure out what the other 21 kids are going to do.” During the observation day, the majority of activities took place in a whole class setting: morning message, circle time (teacher read-aloud: fairy tales, students asked to make predictions and inferences based on pictures and the storyline), literacy activity: writing a postcard (students were asked to “imagine” being a fairy tale character and write a letter and draw a picture from their point of view intended for another character), and games with the word wall. No ability-based group activity was observed. Students were seated in four desks of five or six chairs based on mixed gender and ability and “who works well together, who drives me crazy when they’re together.” Teacher 6B expressed that it is “very rare” for students to be “all working on the same thing at the same time” as the observation day.

Classroom management strategies included: counting to five to re-focus attention, time limits (expectation that a distracted student has some work completed by the time the teacher returns in 10 minutes), verbal praises (of completed work), and regular monitoring of student activity.

Accommodation strategies included overall differentiated instruction, “mix” of whole-class activities and small group instruction (e.g., predicting activity: some making predictions based on chapter books, others based “on the cover of one of those brutal level A readers”),
using “books that will challenge everybody”, and buddy systems (“this class works fairly well in clusters and in small groups, so I try to use that a lot. They’re happy to help each other and they now, when we do writer’s workshop, [they] edit each other’s work”). School 6 provided additional support in the resource room “even for kids who haven’t been identified yet. We’re lucky, it’s kind of an added bonus.” The Board “is big on differentiating instruction as a theme” although “they don’t always so much talk about what that means or what that looks like. [Documents] talk general strategies but nothing particular.”

Teacher 6B used multiple different groups: “it takes me a long time to think of groups because there are a lot of factors that goes into it” including “what I’m trying to get out of the activity,” student interests, how well students work together, and sometimes performance relative to classmates depending on the activity (e.g., reading: “I probably have 2 really top groups, probably eight to ten kids somewhere in there that can read at like Grade Three; they can read anything, and so I’ll take all those kids and then split them ability-based or split them personality-based ... straight ability doesn’t always work .. and I have a couple of kids who are fairly strong but they’re able to do more if they feel confident, so putting them with kids who aren’t quite as strong as them and letting them consolidate some skills, they end up actually doing more ... and I’ve kids who work the other way: they’re better if they’re sort of just tagging behind; it keeps them motivated”). Teacher 6B attempted to spend “at least one chunk, one sort of language period with each group every week, if not more” and in order to do so, “generally at least three out of the five [language] groups have to be doing something that they can pretty much self-run so that I can really work with a group”. Students were “constantly” moved from groups “so that it’s not always the same four to five kids working together.” Movements were based on changes in interest, and ability: “you can have a kid who all of a sudden jumps, like they weren’t really reading and then something clicks and they’re
just flying and then suddenly it's inappropriate or they just aren’t productive with the people
that they’re with”). When only one student was being moved, the teacher “talked to them
about why they’re switching ... you know tell them ‘I’m moving you because you don’t seem to
be making very good use of your time’.” The potential effects of grouping on students’
behaviours, learning efforts, and self-confidence was “certainly something” Teacher 6B was
“always cognizant of, because you don’t want the perception that this is the “smart group”
and that is the “dumb group”; however “on the flip side: kids know. We just talk a lot about
character building and that everyone has some things that are hard and things that are easy.”
The teacher provided the example that “when one of the perceived really strong students does
something that is ridiculous or makes a mistake, I mean not making them feel terrible about
themselves, but making sure you sort of point out in a way that doesn’t crush them but does let
everyone know that ‘hey you know that they don’t always know everything’.”
3.2 General Group Analyses

In the preceding section, descriptive classroom cases were used in order to provide a picture of the unique ecology in each of the 13 participating classrooms. In this section, general group findings explore quantitative trends across grade levels in Kindergarten and Grade One, as well as variations across classrooms. These following sections are structured by the three organizational levels that shape the framework of each classroom microsystem, including: structural/physical constructs, social/behaviour perceptions, and instructional/pedagogical practices. They further provide efficient summarization of the data around the nine key research questions outlined in the Introduction chapter, Section 1.6.

Data for individual participating Kindergarten and Grade One teachers are included in Appendix I, including Tables 5-8 which illustrate: the frequency of use (days) and literacy instruction time (minutes) spent in each grouping type, teachers’ rationale for using ability groups, and the presence of various additional adults in the classroom (number of days) during the two-week data collection period of this study.

3.2.1 Grouping for literacy instruction.

Did teachers report the use of ability groups for literacy instruction? Why?

Research Question 1: What types of student grouping (whole class, one-on-one, homogenous and heterogeneous ability groups) did Kindergarten and Grade One teachers report using for literacy instruction?

Kindergarten Classrooms

According to Instructional Logs [Appendix D] completed by all seven Kindergarten teachers across 10 days during the Fall and Spring data collection periods, whole class
instruction was the preferred setting for literacy learning, reported on a mean of 9.4 days 
(Range = 8-10 days, SD = 0.8 days), followed by one-on-one instruction (M = 7.3 days, 
Range = 3-10 days, SD = 2.3 days). Although whole class and one-on-one settings were used by 
all teachers, and by most (5/7) on a regular basis (on seven or more days), the frequencies with 
which teachers opted for same- and mixed-ability groups were lower and more varied across 
teachers. Mixed-ability groups were used by 4/7 teachers in both the Fall and Spring (M = 4.6 
days, Range = 2-8 days, SD = 2.2 days). Same-ability groups on the other hand, were reported 
by 5/7 teachers in the Fall and 6/7 teachers in the Spring (M = 4.8 days, Range = 1-8 days, 
SD = 2.5 days). There was a statistically significant difference between the reported use of 
various grouping types across the data collection period as determined by a one-way ANOVA 
F(3,21) = 8.0, p < .005. Tukey post hoc tests further revealed that across 10-days of observation, 
the use of whole class settings was statistically significantly higher than small ability-based 
groups, but not one-on-one instruction. There was no statistically significant difference between 
mean use of one-on-one and ability-based group settings.

Figure 2 illustrates the mean number of days each student grouping type was reported by 
Kindergarten teachers during the Fall and Spring. As this figure shows, while the mean reported 
use of same-ability groups remained the same, there was a slight decrease across all other 
grouping types as the academic year progressed (Range = 0.6-1.3 day); however a series of 
paired t-tests revealed that none of the differences in mean usage frequency between the Fall 
and Spring were statistically significant for this sample of Kindergarten teachers\textsuperscript{8}.

\textsuperscript{8} Whole Class: t(6) = 1.9, p = .10; One-on-One: t(6) = 1.7, p = .14; Mixed-Ability Groups: t(3) = 1.9 p = .19; Same-Ability 
Groups: t(4) = -.43, p = .69

98
Teacher T5A was the only teacher who did not report using ability groups (same and/or mixed) on any of the data collection days (despite reporting the presence of additional adults in her classroom). Interestingly, while she did make several references to “pulling out students” and grouping during interviews, when explicitly asked about this practice in the Fall, she expressed plans to use grouping for guided reading later in the term, and that at the time (December) she was implementing this program at the whole group level. This was reflected in her mean reported instruction time spent in whole group instruction, which was over double the figure reported by all seven Kindergarten teachers (84 minutes vs. 36.5 minutes). The Fall classroom observation also revealed a heavy emphasis on structured whole group literacy programming. In the Spring interview (April), Teacher 5A re-iterated plans of “making same ability groups” for guided reading “next month.”

*Figure 2.* Reported mean use (number of days) of student grouping types by Kindergarten teachers during the Fall and Spring data collection periods. Differences between the terms were not statistically significant.
Grade One Classrooms

Describing the overall use of various group settings for literacy instruction by Grade One teachers is limited by missing data for two teachers in the Spring term. For those teachers who completed the study (4/6), mean calculated values for all 10 reported days indicate that, similar to Kindergarten teachers, Grade One teachers most often opted for whole class grouping \((M = 9.0 \text{ days}, \text{Range} = 6-10 \text{ days}, SD = 2.0 \text{ days})\), followed by one-on-one instruction \((M = 7.5 \text{ days}, \text{Range} = 1-10 \text{ days}, SD = 4.4 \text{ days})\) for literacy instruction. However, in contrast to their Kindergarten counterparts, Grade One teachers reported frequent use of ability groups with the two group types being about equally common. For the four teachers who completed the study: mixed-ability groups were reported a mean of 6.5 days \((\text{Range} = 4-10 \text{ days}, SD = 2.7 \text{ days})\), and same-ability groups were reported a mean of 6.3 days \((\text{Range} = 3-10 \text{ days}, SD = 3.3 \text{ days})\). According to a one-way ANOVA \((F(3,12) = .61, p = .62)\), differences in mean use of the different grouping types over the 10 study days, by the 4 teachers who completed the study, were not statistically significant.

Figure 3 illustrates the mean number of days each student grouping type was used by Grade One teachers during the two data collection periods. Fall term bars include data for the two teachers for whom Spring data were unavailable. As illustrated, there was a slight decrease in the mean number of days all grouping types were used as the academic year progressed \((\text{Range} = 0.6-1.1 \text{ days})\). However, similar to Kindergarten teachers, a series of paired \(t\)-tests

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9 Teacher logs for the Spring term were not available for 2 Grade One teachers; one teacher failed to return her logs despite multiple attempts to contact her (T6B), while the other teacher chose to withdraw from the study during the Spring term, citing a busy schedule (T5B).
revealed that none of the differences in mean usage frequency between the Fall and Spring were statistically significant for this sample of Grade One teachers\textsuperscript{10}.

While it is possible that any reported modest decreases in the use of the various grouping types in Kindergarten and Grade One classrooms between the Fall and Spring might be due to increases in independent activities as students are given more autonomy throughout the academic year, self-reported teacher logs did not collect general or literacy instruction time for independent activities, as the collection of individual student information was not feasible. Furthermore, although whole class and one-on-one settings were nearly equally reported, Grade One teachers used same- and mixed-ability groups a mean of approximately 1.5 to 2 days more frequently, respectively (Figure 4). However, two-sample $t$-tests revealed that none of the

\textsuperscript{10} Whole Class: $t(3) = 1.0, p = .39$; One-on-One: $t(3) = -1.7, p = .18$; Mixed-Ability Groups: $t(3) = 0, p = 1$; Same-Ability Groups: $t(3) = 1.6, p = .22$
differences were statistically significant. Appendix I, Table 5, illustrates the frequency of various grouping types used by individual participating Kindergarten and Grade One teachers during each of the data collection periods.

**Research Question 2:** What were the major factors influencing the formation and utilization of ability-based groups for literacy instruction according to Kindergarten and Grade One teachers?

During one-on-one interviews [Appendix E] conducted in both the Fall and Spring, each participating teacher was asked about actual or potential (i.e., if they were not grouping at the time of interview) reasons for grouping students by ability. All 25 interviews collected were reviewed and major themes were identified. The five emergent themes included:

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11 Whole class: $t(3) = .41, p = .71$; One-on-one: $t(3) = -.09, p = .93$; Mixed-Ability Groups: $t(5) = -1.2, p = .30$; Same-Ability Groups: $t(5) = -.73, p = .49$

12 7/7 Kindergarten teachers and 5/6 Grade One teachers completed the Fall and Spring interviews. The remaining Grade One teacher (T5B) chose to withdraw from the study during the Spring term, citing a busy schedule; she did however, complete the Fall interview.
- Instructional Factors – e.g., meeting individual student needs, tracking student progress, grouping based on program/subject/task performance
- Meeting Students’ Social and Emotional needs – e.g., fostering social skills, building confidence in ability, alleviating student frustration/anxiety
- Student Compatibility and Classroom Management
- Principal Encouragements/School Board Mandates/Professional Development
- Natural Age Division (Kindergarten only) – Junior vs. Senior Kindergarten students

Appendix I, Table 7, illustrates rationales (by theme) provided by individual participating teachers. Each theme was reported by at least two teachers. Figure 5 illustrates the percentage – allowing comparison between grades – of Kindergarten and Grade One teachers who reported rationales appropriate to each theme. Teachers were welcome to list as many rationales as applicable. Verbatim quotes from participating teachers are included in italicized text.

![Figure 5](image_url)  
*Figure 5.* Teacher rationales for grouping students by ability as reported by the total percentage of all participating teachers, during the Fall and Spring interviews. In all cases, teachers provided multiple rationales (based on thematic analysis of all teacher responses collected).
Kindergarten Teachers

When asked about their rationale for grouping students by ability, all Kindergarten teachers referenced instructional factors, reasoning that smaller groups allow them to differentiate instruction, track student progress, provide additional time and support for struggling students and alternatively challenge those excelling. In these cases, students were often placed in a particular group based on individual assessment (teacher-devised rubrics and informal assessments) and for the purposes of a specific program (e.g., guided reading), subject (literacy, mathematics), or task (e.g., sounding out letters, finger tracking) with the ultimate goal of skill or content “mastery.” Age division also provided “natural clusters” for five classrooms, as six out of the seven Kindergarten classes contained both Junior and Senior Kindergarten students. Three teachers further reported taking into consideration students’ social and emotional needs, and praised same-ability groups for fostering student socialization and reducing frustration and anxiety, particularly when compared to mixed-ability groups. Finally, student compatibility (students “getting along” and “working well together”), as well as principal encouragements, played a role in grouping students for two teachers in each respective case. Five teachers reported having taught Grades One and Two in the past and using both same- and mixed-ability groups for reading instruction, particularly at the Grade One level.

Grade One Teachers

All six Grade One teachers also cited instructional factors as the main rationale for grouping students by ability. Groups were devised based on “ability clusters” in order to accommodate student variability as well as to provide additional teaching opportunities (“mini lessons or a teaching moment”) addressing common student needs. The Developmental Reading Assessment (DRA) served as the main assessment tool for reading ability in five out of six
classrooms (T5B instead used students’ Kindergarten Balanced Literacy Folders), while students were commonly grouped for the purposes of teaching specific concepts (e.g., punctuation, comprehension, problem solving) and programs (e.g., guided reading, Writers’ Workshop). Student compatibility and classroom management were further cited by three teachers who described that it is “easier to handle a group” rather than a classroom full of individual students, and the importance of “tweaking” groups by student personality and social rapport, and ensuring to group those who “work well together” rather than students who “drive [the teacher] crazy when they are together!” Half the teachers also emphasized taking students’ social and emotional needs into consideration, particularly to encourage self-confidence and avoid “student frustration which would turn them off from learning.” As one teacher described: “some students perform better when they feel confident, regardless of their superior abilities, therefore when putting them with kids who are not quite as strong as them and letting them consolidate some skills, they end up actually doing more; yet others perform optimally when they are sort of just tagging behind a tiny bit, as it keeps them motivated to stay with it”. Finally, two teachers pointed to school- and Board-advocated accommodation strategies (particularly for reading instruction), principal encouragements, and professional development workshops as further factors influencing their decision to group students based on ability. All six Grade One teachers had used ability groups in the past, however two described one-on-one instruction as the ultimate “utopia” of classroom instruction, going on to state that because “there is no way” to implement such setting with 20 students at once, ability groups were “more feasible.”

3.2.2 Structural/physical constructs.
Classroom Literacy Environment and Presence of Additional Adults

Research Question 3: How were Kindergarten and Grade One classrooms designed and organized to support literacy learning?
The 54-item Classroom Literacy Environment Checklist [Appendix H] was designed to provide an overall account of the various literacy learning materials and resources, as well as the spatial organization present in each classroom. All 13 participating teachers completed the checklist during the Fall data collection period. A total of nine items was reported by all Kindergarten and Grade One teachers: pens/crayons/markers, accessible supply of paper, the alphabet, book bins, word wall/bank, computer(s), monthly calendar, student artwork on display, and theme-related print. Furthermore, all participating classrooms had a rug, and student desks were organized in groups rather than in rows. With the exception of one item, the presence of each of the remaining checklist items were reported by at least one teacher from each grade level (sand/water activity table was not reported by any Grade One teachers).

For the purposes of summarizing and reporting data, the 52 items* corresponding to literacy learning materials and resources were grouped into seven categories guided by Smith, Brody and Clark-Chiarelli’s Early Language & Literacy Classroom Observation Tool (ELLCO K-3, 2008) and the learning expectations of the Ontario Ministry of Education’s Kindergarten Program (Revised, 2006), and Curriculum Grades 1-8 Language (2006) documents:

- Activity centres (14 items)
- Book area and selection (6 items)
- Classroom rules and routines (7 items)
- Visual references (3 items)
- Student-related literacy displays (5 items)
- Writing around the room (5 items)
- Writing materials (12 items).
The categories exclude the two structural items – rug and student desk organization – which were present and organized in the same way in all classrooms.

Table 1 summarizes the mean presence of various classroom literacy learning materials and resources, as reported by all participating Kindergarten and Grade One teachers.

<table>
<thead>
<tr>
<th>Classroom Literacy Environment Items Organized by Category (in alphabetical order)</th>
<th>Mean Number* and Range of Classroom Literacy Items Reported by All 13 Participating Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Activity Centres</strong> arts &amp; crafts, blocks, computers, dramatic play, drawing/ writing, listening, math, playdough &amp; cookie cutters, puppet theatre, puppets/masks/costumes, puzzles/games, sand/water, science, stuffed animals</td>
<td>Kindergarten Classrooms</td>
</tr>
<tr>
<td>Mean number of items reported: 11/14</td>
<td>Mean number of items reported: 7/14</td>
</tr>
<tr>
<td>Range: 8-14 items</td>
<td>Range: 1-12 items</td>
</tr>
<tr>
<td><strong>Book Area and Selection</strong> book bins, reader’s/author’s chair, reading corner, reference books, teacher-authored stories/text, theme-related print</td>
<td>Kindergarten Classrooms</td>
</tr>
<tr>
<td>Mean number of items reported: 5/6</td>
<td>Mean number of items reported: 5/6</td>
</tr>
<tr>
<td>Range: 4-6 items</td>
<td>Range: 4-6 items</td>
</tr>
<tr>
<td><strong>Classroom Rules &amp; Routines</strong> classroom rules, daily schedule of activities/events, duties/helpers chart, group rotation schedule, monthly calendar, weather chart, weekly calendar</td>
<td>Kindergarten Classrooms</td>
</tr>
<tr>
<td>Mean number of items reported: 4/7</td>
<td>Mean number of items reported: 5/7</td>
</tr>
<tr>
<td>Range: 1-7 items</td>
<td>Range: 3-6 items</td>
</tr>
<tr>
<td><strong>Student-related Literacy Displays</strong> student artwork on display, student birthdates, student names, student projects on display, student writing on display</td>
<td>Kindergarten Classrooms</td>
</tr>
<tr>
<td>Mean number of items reported: 4/5</td>
<td>Mean number of items reported: 5/5</td>
</tr>
<tr>
<td>Range: 3-5 items</td>
<td>Range: 3-5 items</td>
</tr>
<tr>
<td><strong>Visual References</strong> pictures/photos, graphs, maps</td>
<td>Kindergarten Classrooms</td>
</tr>
<tr>
<td>Mean number of items reported: 2/3</td>
<td>Mean number of items reported: 2/3</td>
</tr>
<tr>
<td>Range: 1-3 items</td>
<td>Range: 0-3 items</td>
</tr>
<tr>
<td><strong>Writing Around the Room</strong> alphabet, labels to identify objects/spaces, reading/writing reference charts, songs/poems on chart paper, word wall/bank</td>
<td>Kindergarten Classrooms</td>
</tr>
<tr>
<td>Mean number of items reported: 5/5</td>
<td>Mean number of items reported: 4/5</td>
</tr>
<tr>
<td>Range: 3-5 items</td>
<td>Range: 4-5 items</td>
</tr>
<tr>
<td><strong>Writing Materials</strong> accessible supply of paper, chalk board &amp; chalk, easel &amp; chart paper, flannel board &amp; cutouts, letter stamps, letter templates, magnetic letters, paint, pens/crayons/markers, student journals, student workbooks/worksheets, white boards</td>
<td>Kindergarten Classrooms</td>
</tr>
<tr>
<td>Mean number of items reported: 8/12</td>
<td>Mean number of items reported: 9/12</td>
</tr>
<tr>
<td>Range: 6-11 items</td>
<td>Range: 7-11 items</td>
</tr>
</tbody>
</table>

* Given the nature of the data, mean number of items reported have been rounded to the nearest whole number

** Two-sample t-tests revealed that differences in reported category between Kindergarten and Grade One classrooms were statistically significant (P<.05)
The most notable difference between the two grades was the greater variety of activity centres reported by Kindergarten teachers who reported a mean of 11/14 activity centre types, compared to Grade One teachers who reported a mean of seven types. In fact, while half of all Grade One teachers (3/6), reported two or fewer activity centers in their classrooms, all Kindergarten teachers reported at least eight or more centres in theirs. A two-sample t-test revealed that this difference was statistically significant ($t(6) = 1.9, p < .05$). On the other hand, on average, Grade One teachers reported the presence of all student-related literacy displays (5/5 items, $Range = 3-5$ items vs. 4/5 items, $Range = 3-5$ items reported by Kindergarten teachers). A two-sample t-test revealed that this difference was also statistically significant ($t(10) = -1.9, p < .05$). The remaining categories, including book area and selection ($t(11) = .38, p = .36$), classroom rules and routines ($t(10) = -.86, p = .21$), visual references ($t(10) = .59, p = .29$), writing around the room ($t(11) = 1.1, p = .15$), and writing materials ($t(11) = -.46, p = .33$), were nearly equally reported across all Kindergarten and Grade One classrooms.

**Research Question 4**: Did teachers note the presence of additional adults during literacy instruction in their classroom? How did teachers perceive the effects of these adults on the literacy environment?

**Kindergarten Classrooms**

Nearly all Kindergarten teachers (6/7) reported the presence of an additional adult assisting with reading and language arts instruction during at least four of the 10 observation days ($M = 7.5$ days, $Range = 4-10$ days, $SD = 1.9$ days), with teacher aides and student teachers as the most common assistants, followed by volunteers and special education teachers.
During one-on-one interviews, the majority of Kindergarten teachers (4/7) emphasized the importance of additional adult presence, particularly in order for small student groups to be successful; however there appeared to be no association between the presence of additional adult(s) and the use of grouping across the 10 data collection days. Figure 6 illustrates the number of days ability groups (same- and/or mixed-ability) were reported in relation to the number of days additional adults were present in each Kindergarten classroom.

![Graph](image)

*Figure 6. The relation between the use of ability groups and presence of additional adults in Kindergarten classrooms.*

Notably, teacher T4A reported no additional adults on any of the study days but reported using ability groups on eight of the 10 days, while teacher T5A reported no ability groups despite having additional adults in her classroom eight of the 10 observation days.

*Grade One Classrooms*

More than half of all Grade One teachers (4/6) reported additional adult presence for at least half of all logged days ($M = 8.3$ days, *Range* = 5-10 days, $SD = 2.2$ days), with special
education teachers as the main source of additional assistance, followed by teacher aides, volunteers, and student teachers. It is interesting to note the difference in the presence of special education teachers at the Kindergarten vs. Grade One levels.

During interviews, Grade One teachers also expressed the need for “additional support” in order for small student groups to be effective, with one teacher stating that ability groups “can’t happen without extra adults in the room,” while another emphasized that “the more bodies the better; you don’t miss anyone as there is more support for all students, struggling or not.” Figure 7 illustrates the number of days ability groups were reported in relation with the number of days additional adults were present in each Grade One classroom.

Similar to Kindergarten classrooms, there is no clear pattern linking the presence of additional adult(s) and the use of ability groups by Grade One teachers. Notably, teachers T2B...
(data available for all 10 study days) and T5B (data available for five-day Fall term only) who reported no additional adults on any of the study days, reported using ability groups on all study days.

Appendix I, Table 8, illustrates the reported presence of additional adults by individual participating Kindergarten and Grade One teachers throughout the two-week data collection period.

3.2.3 Social/behavioural perceptions.  
Teacher-Perceived Effects of Grouping on Student Outcomes and Grouping Flexibility

Although social and behavioural dimensions including teacher-student and peer-peer interactions were not directly measured, all 13 teachers who participated in the study were invited to share their experiences and beliefs regarding the various components of their classroom’s social ecology through the Fall and Spring one-on-one interviews. In line with the study’s objective to observe classrooms through the lens of teachers, the following sections summarize teacher perceptions of the social and behavioural effects of grouping on their students and their rationale for changing group compositions. Verbatim quotes from participating teachers are included in italicized text.

Research Question 5: Did Kindergarten and Grade One teachers perceive that students’ classroom behaviours and self-esteem were affected by their placement in a particular grouping structure?

Kindergarten Classrooms

When asked about the perceived effects of grouping on student behaviour during one-on-one interviews, three of the seven Kindergarten teachers explained that although their classroom consisted of a wide developmental gradient, Kindergarten students in general are “too
egocentric” to notice group differences: “they don’t stand out to each other” and ultimately “don’t see themselves as part of one group.” Also, students at this level were perceived to be “less competitive” and unlikely to “judge themselves or others in the same way as when they get older and feel insecure.” While this group of teachers reported not having observed student behaviour being affected as a result of grouping, another three teachers emphasized the importance of consistently monitoring and re-arranging groups in order to avoid any potential associated stigmas, particularly for lower achieving students. As one teacher explained, “students' self-esteem is only affected by grouping when there is no flexibility and groups remain static.” Grouping students based on similar abilities was credited by two teachers with “allowing students’ self-esteem to remain high, and effort levels to remain continuous and authentic, as students have no need to compete”.

Grade One Classrooms

All four Grade One teachers who responded to the question of whether student behaviours may be affected by the group they are placed in, acknowledged that “students are intuitive about some groups being higher than others”; hence teachers were “always cognizant because you don’t want the perception that this is the ‘smart group’ and that’s the ‘dumb group’.” Three of the four teachers emphasized the importance of reminding students that “we’re all different and good at different things” and that “everyone goes at their own pace” when creating groups. Two of these teachers went on to praise same-ability groups for improving students’ self-confidence, motivation to read, and sense of success, while mixed-ability groups were recognized for their potential to allow students to feel as though they were a valuable member of the group regardless of their ability level, particularly when grouped in order to complete a project requiring different skills (e.g., creativity vs. academic ability).
Therefore, as one teacher summarized: same-ability groups “can target what students need, and allow teachers to tailor the lessons based on what groups need”, while mixed-ability groups are “great because each student excels at something, so it is essentially a pool of talents.”

**Research Question 6**: Under what circumstances would teachers move students from one group to another?

**Kindergarten Classrooms**

When asked regarding their rationale for moving students between different groups (where applicable), responses collected from Kindergarten teachers fell under one of three general themes:

- Changes in student academic ability
- Considerations of student compatibility (classroom management); and,
- Meeting students’ social and emotional needs

Four out of seven teachers reported restructuring and moving students from one group to another once they showed “improved ability” and hence required “additional challenges,” while three teachers chose to re-group in order to “avoid conflicts” between students “not getting along” due to “personality conflicts.” Finally, three teachers believed it was important to maintain flexible groups in order to allow all students to socialize with each other and maintain confidence in their abilities.

**Grade One Classrooms**

Unlike Kindergarten teachers, all five Grade One teachers who reported moving students from one group to another mentioned doing so only when students displayed a change in academic ability, whether because they had “improved at a faster rate than the rest of their
group,” or their “level surpassed group expectations” because of a “big spurt” in their language and reading skills. Students were also “moved down” to a lower ability group if they were perceived to be struggling with keeping up with other members. This focus on academic ability is somewhat surprising given that when asked about their rationale for grouping, a higher percentage of Grade One teachers cited student compatibility and classroom management (50%), and meeting students’ social and emotional needs (50%) compared to their Kindergarten counterparts (29% and 43%, respectively); however none provided this reasoning for changing group compositions.

3.2.4 Instructional/pedagogical practices.

Literacy Instruction Dosage and Content

Research Question 7: On average, how much time did teachers devote specifically to literacy instruction per day? How did this time compare to the overall general instruction time reported?

Daily Instructional Logs [Appendix D] chronicling teachers’ accounts of the total time they spent on daily general instruction, as well as time they devoted specifically to reading and language arts learning, were collected for a total of 10 days during the Fall and Spring data collection periods. Kindergarten teachers reported data for morning classes only. Data show that all seven Kindergarten and six Grade One teachers reserved at least half, and in most cases substantially more than half, of their daily instruction time for literacy activities. Figures 8 and 9 illustrate the mean proportion of general instruction time (in minutes) devoted to literacy instruction by each Kindergarten and Grade One teacher, respectively.

Over the 10-day data collection period, the seven participating Kindergarten teachers collectively reported a mean daily literacy instruction time of 57 minutes (Range = 37 to 81 minutes, SD = 17 minutes); this number was doubled for Grade One teachers, whose classrooms
were observed for the entire day ($M = 120$ minutes, $Range = 59$ to 143 minutes, $SD = 31$ minutes). Both mean values are in accordance with the Ontario Ministry of Education’s recommendations of 45-60 minutes, and 90-130 minutes of daily literacy instruction and related activities at the Kindergarten and Grade One levels, respectively (Ontario Ministry of Education, 2003, p. 389 (13.13)).

However, while Grade One teachers reported higher mean daily literacy instruction time, when considering these data in relation to total daily general teaching time available, it was in fact Kindergarten teachers who on average reported modestly higher percentages of time devoted to literacy activities ($M = 82\%$, $Range = 53\%$ to 100\%, $SD = 16\%$ vs. Grade One teachers: $M = 72\%$, $Range = 47\%$ to 100\%, $SD = 18\%$). A two-sample $t$-test revealed that this difference was not statistically significant ($t(10) = .96$, $p = .36$). Figures for Kindergarten teachers were comparable to those calculated based on running records of classroom activities ($M = 83\%$, $Range = 65\%$ to 100\%, $SD = 14\%$; $t(11) = -.21$, $p = .84$); however for Grade One classrooms, observations yielded modestly higher, albeit not statistically significantly different, percentages ($M = 89\%$, $Range = 69\%$ to 100\%, $SD= 12\%$; $t(8) = -1.9$, $p = .098$). This difference may be due to a number of factors, including the Hawthorne/observer effect (Franke & Kaul, 1978), teacher T5B’s withdrawal from the study in the Spring term (and hence lack of logs and classroom observation data for this classroom) during the second data collection period, and/or curriculum integration. During interviews, one teacher from each grade alluded to curriculum integration and the importance and prevalence of formal and informal literacy instruction in numerous aspects of Kindergarten and Grade One classrooms (e.g., labels on classroom objects, literacy items at activity centres such as food menus), and hence the difficulty of reporting precise instructional minutes using the logs.
Figure 8. Mean general instruction time devoted to literacy instruction reported by Kindergarten teachers, over the 10-day data collection period.

Figure 9. Mean general instruction time devoted to literacy instruction reported by Grade One teachers throughout the study period*.

*Teacher logs for the Spring Term were not available for teachers T5B and T6B; therefore 5-day Fall data were used to graph results for these two teachers.
Research Question 8: How was time devoted to literacy instruction distributed between different grouping structures when they were used by participating teachers?

Appendix I, Table 6, illustrates mean literacy instruction time spent in various grouping types by individual Kindergarten and Grade One teachers during each data collection period.

Kindergarten Classrooms

Table 2 summarizes mean reported literacy instruction time spent in each grouping type when Kindergarten teachers opted for their use throughout the 10-day data collection period. Figure 10 further illustrates these data broken down by the Fall and Spring terms.

There was a statistically significant difference in time devoted to literacy instruction between the grouping types as determined by one-way ANOVA ($F(3,165) = 20.37, p < .000$). A Tukey post hoc test revealed that across the 10-day observation period, literacy instruction time spent in whole class settings was statistically significantly higher than all other grouping types. There was no statistically significant difference between instruction time spent in one-on-one, and small ability-group settings. To determine any reported changes in literacy instruction
time between the two data collection periods, a series of paired $t$-tests were conducted within each type of student grouping (whole class, one-on-one, ability groups), and revealed no statistical differences in instruction time between the Fall and Spring terms$^{13}$.

![Bar chart showing literacy instruction time spent in various grouping types reported by Kindergarten teachers across the Fall and Spring data collection periods.](image)

**Figure 10.** Mean literacy instruction time spent in various grouping types reported by Kindergarten teachers across the Fall and Spring data collection periods.

### Grade One Classrooms

Table 3 summarizes mean reported literacy instruction time spent in each grouping type when Grade One teachers opted for their use. Frequency of use has been summarized separately for Fall and Spring data collection periods given missing data for two Grade One teachers in the latter term. Figure 11 illustrates these data broken down by each data collection period.

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$^{13}$ Whole Class: $t(6) = -.0, p = .99$; One-on-One: $t(6) = .2, p = .85$; Mixed-Ability Groups: $t(3) = -.39, p = .73$; Same-Ability Groups: $t(4) = 1.4, p = .23$
Table 3

Mean literacy instruction time spent per grouping type reported by Grade One teachers. On average, Grade One teachers devoted 72% of their daily general instruction time to literacy activities.

<table>
<thead>
<tr>
<th>Reported Use of Grouping Type *</th>
<th>Fall # of teachers reporting use (/6)</th>
<th>Whole Group</th>
<th>One-On-One</th>
<th>Mixed-Ability Groups</th>
<th>Same-Ability Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6 teachers</td>
<td>5 teachers</td>
<td>6 teachers</td>
<td>5 teachers</td>
<td></td>
</tr>
<tr>
<td>Range of use per teacher (/5 days)</td>
<td>4-5 days</td>
<td>4-5 days</td>
<td>1-5 days</td>
<td>2-5 days</td>
<td></td>
</tr>
<tr>
<td>Total days used by all teachers (/30 days)</td>
<td>29 days</td>
<td>24 days</td>
<td>23 days</td>
<td>19 days</td>
<td></td>
</tr>
<tr>
<td>Spring # of teachers reporting use (/4)</td>
<td>4 teachers</td>
<td>4 teachers</td>
<td>4 teachers</td>
<td>4 teachers</td>
<td></td>
</tr>
<tr>
<td>Range of use per teacher (/5 days)</td>
<td>2-5 days</td>
<td>1-5 days</td>
<td>2-5 days</td>
<td>1-5 days</td>
<td></td>
</tr>
<tr>
<td>Total days used by all teachers (/20 days)</td>
<td>17 days</td>
<td>16 days</td>
<td>13 days</td>
<td>11 days</td>
<td></td>
</tr>
</tbody>
</table>

Mean Literacy Instruction Time Spent in Grouping **

<table>
<thead>
<tr>
<th>Average time spent in grouping when it was reportedly used by teachers</th>
<th>50.9 mins</th>
<th>36.4 mins</th>
<th>26.3 mins</th>
<th>40.8 mins</th>
</tr>
</thead>
<tbody>
<tr>
<td>SD = 22.1 mins</td>
<td>SD = 17.9 mins</td>
<td>SD = 14.9 mins</td>
<td>SD = 19.4 mins</td>
<td></td>
</tr>
<tr>
<td>Range of minutes spent in grouping</td>
<td>20-110 mins</td>
<td>10-65 mins</td>
<td>5-80 mins</td>
<td>5-80 mins</td>
</tr>
</tbody>
</table>

* Data has been divided into each applicable data collection period, given missing Spring Term data for 2 teachers.

** Mean instruction time include Fall Term data available for the 2 teachers with missing Spring Term data.

Figure 11. Mean literacy instruction time spent in various grouping types reported by Grade One teachers across the Fall and Spring data collection periods.
There was a statistically significant difference in time devoted to literacy instruction between the grouping types as determined by a one-way ANOVA ($F(3,148) = 11.82, p < .000$). A Tukey post hoc test revealed that across the 10-day observation period, literacy instruction time spent in whole class settings was statistically significantly higher than one-on-one and mixed-ability groups; however it was not significantly different than instruction time spent in same-ability groups. On the other hand, while time spent in same-ability groups was statistically significantly higher than mixed-ability groups, it was not significantly different than instruction time spent in one-on-one settings. There was no statistically significant difference between mean instruction time spent in one-on-one and mixed-ability groups. Mean Instruction time per grouping type, in each of the data collection periods, is reported in Figure 11; a series of paired $t$-tests revealed that none of the differences between the two periods were statistically significant$^{15}$.

**Research Question 9**: What were the major literacy content elements taught in Kindergarten and Grade One according to grouping type reportedly used by participating teachers?

The *Student Reading/Language Experiences* section of each daily instruction log [Appendix D] includes a checklist of 31 literacy items. Teachers were asked to indicate their daily use of each item over the 10-day data collection period in the Fall and Spring, according to student grouping structure(s) used to teach each item: whole class, one-on-one, independent$^{16}$, and ability groups. To summarize and report results, items were grouped into five major

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$^{15}$ Whole Class: $t(3) = -.3, p = .79$; One-on-One: $t(2) = .7, p = .56$; Mixed-Ability Groups: $t(3) = 1.45, p = .24$; Same-Ability Groups: $t(3) = .06, p = .9$.

$^{16}$ Self-reported teacher logs did not collect general or literacy instruction time for independent activities, as the collection of individual student information would not be feasible. However, teachers were able to report literacy content items they assigned for individual practice; therefore independent settings were only included in the logs under this section.
categories developed referencing the Ontario Ministry of Education’s *Kindergarten Program* (Revised, 2006), and *Curriculum Grades 1-8 Language* document (2006), which outlines the learning expectations for each grade:

- Basic Literacy Skills, including phonics and vocabulary (6 items);
- Oral Language (4 items);
- Reading for Meaning (6 items);
- Skill-Referenced Reading (6 items); and,
- Writing Activities (9 items).

Table 4 lists each of these five categories along with their corresponding literacy content items from the daily instruction logs, as well as the mean reported percentage of use of each category per grouping type by all participating Kindergarten and Grade One teachers.

<table>
<thead>
<tr>
<th>Instructional Category</th>
<th>Kindergarten Classrooms</th>
<th>Grade One Classrooms</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Whole Group One-on-One</td>
<td>Whole Group One-on-One</td>
</tr>
<tr>
<td>Basic Literacy Skills</td>
<td>70% 10% 6% 5% 9%</td>
<td>49% 21% 10% 13% 7%</td>
</tr>
<tr>
<td>Oral Language</td>
<td>72% 4% 15% 1% 8%</td>
<td>43% 3% 10% 21% 23%</td>
</tr>
<tr>
<td>Reading for Meaning</td>
<td>79% 5% 13% 2% 1%</td>
<td>53% 6% 29% 8% 4%</td>
</tr>
<tr>
<td>Skill-Referenced Reading</td>
<td>59% 16% 12% 9% 4%</td>
<td>31% 21% 24% 23% 1%</td>
</tr>
<tr>
<td>Writing Activities</td>
<td>28% 15% 28% 7% 22%</td>
<td>35% 20% 27% 6% 12%</td>
</tr>
</tbody>
</table>

Table 4
Within-category percentages of instructional content taught based on grouping type as reported by all participating Kindergarten and Grade One teachers.
Kindergarten Classrooms

Overall, Kindergarten teachers reported the combined use of the 31 literacy content items a total of 1,158 times over the entire data collection period: 62% of the instances took place in whole-class settings, 10% occurred one-on-one, 14% independently, 5% in same-ability groups, and 9% in mixed-ability groups. With the exception of the Writing Activities category, items grouped under all four remaining categories were reportedly mainly taught in a whole class setting (Range = 59% to 79%). This pattern corresponds to the statistically significant higher time Kindergarten students spent in whole group vs. all other instructional settings. Categories organized in order of the overall percentage of reported use by Kindergarten teachers were: Basic Literacy Skills (30%), Reading for Meaning (24%), Writing Activities (20%), Skill-Referenced Reading (17%), and Oral Language (9%). The three most frequently reported literary items by all Kindergarten teachers were: working on letter sounds; listening to an adult read; and, working on letter names. On the other hand, publishing student writing, using a listening centre, and completing book-related projects, were reported by fewer than two teachers.

Grade One Classrooms

Grade One teachers reported the combined use of the 31 log items a mean total of 1,320 times over the study period: 42% occurred in a whole-class settings, 16% one-on-one, 22% independently, 13% in same-ability groups, and 8% in mixed-ability groups. In contrast to Kindergarten teachers, with the exception of the Reading for Meaning category, all other four categories were mainly taught in a setting other than whole group instruction (Range = 51% to 69%). Categories in order of the overall percentage of reported use by Grade One teachers were: Writing Activities (26%), Skill Referenced Reading (23%), Reading for Meaning (21%),
Basic Literacy Skills (21%), and Oral Language (9%). The three most frequently reported literacy items by all Grade One teachers were: read aloud, read silently, and writing words using invented spelling.

In order to compare the relation between frequency of use, instruction time, and literacy content across all instructional settings, these three data sets were converted into proportions/percentages based on mean data reported by all participating Kindergarten and Grade One teachers, respectively. Figures 12 and 13 illustrate the corresponding summary data. Given that it was not feasible to collect usage frequency and instruction time spent within independent activities, only the proportion of reported literacy content items in this category is illustrated.

**Kindergarten Classrooms**

![Graph](image)

*Figure 12. Proportions of usage frequency, literacy instruction time, and literacy instruction content spent in various instructional settings based on mean reported data by participating Kindergarten teachers.*
In terms of how often teachers opted to use each instructional setting, whole class and one-on-one instruction were the clear preferred arrangements (used on 70% or more of the observation days). Ability groups were used during less than half the 10-day observation period.

Negligible differences were noted in the proportion of literacy instruction time students spent in one-on-one and ability-based groups (ranging from 26-28%); however, students spent over 60% of this time in whole class settings.

Literacy content was mainly taught in whole class (62%) followed by a distant 14% learned independently. While instruction time spent across one-on-one and ability-based groups was nearly identical, only 5% of literacy content was reportedly taught in same-ability groups; half of the percentage taught in one-on-one and mixed-ability groups.

*Figure 13.* Proportions of usage frequency, literacy instruction time, and literacy instruction content spent in various instructional settings based on mean reported data by participating Grade One teachers.
Frequency of use across various instructional settings was more evenly distributed in Grade One classrooms; although whole class (90%) and one-one-on (75%) instruction were still the preferential arrangements, mean usage differences across all instructional settings were statistically insignificant.

Students spent a statistically similar amount of literacy instruction time in whole class (42%) and same-ability groups (34%).

Literacy content was mainly taught in whole class settings (42%) followed by independent activities (22%). While instruction time spent in whole class and same-ability groups was statistically similar, only 13% of literacy content reported was taught in same-ability groups.

Given the prevailing reported use of whole group settings for literacy instruction (time and content) at both the Kindergarten and Grade One levels, literacy content reported by all participating teachers was re-visited, and each of the five categories were re-illustrated using whole class data vs. data combined for all other instructional settings (one-on-one, independent, ability-based groups). Figures 14-16 illustrate interesting differences across each of the 31 items, summarized as follows:

- **Basic Literacy Skills** were mainly taught in a whole group setting (70%) in Kindergarten (in fact discussing new/difficult vocabulary took place exclusively in this setting), while in Grade One, these skills were nearly evenly taught in whole class (49%) and other instructional settings (51%).

- **Oral Language Skills** were mainly taught in a whole group setting (72%) in Kindergarten. In Grade One, with the exception of teaching songs, nursery rhymes and poems, these skills were once gain nearly taught equally in whole group (43%) and other
instructional settings (57%). This may be explained by the fact that half the items encompassing this category – *perform plays, skits and puppet shows; use listening centre* – lend themselves to small groups/paired/independent settings.

- **Skill-referenced Reading** overall, was nearly equally taught in whole group (59%) and other instructional settings (41%) in Kindergarten. In Grade One however, the majority of these items were taught in other instructional settings (69%). This could be due to developmental factors which would support introducing/reinforcing these skills – e.g., *reading aloud; reading patterned/predictable text, leveled reading texts, text with controlled vocabulary and/or strong phonetic patterns* – in whole group in Kindergarten, and then allowing students to practice/master them independently or in pairs/small groups in Grade One. This explanation could also apply to patterns reported for items encompassing the **Reading for Meaning** category (*listen to an adult read* is not surprisingly mainly reported in whole class settings in both grades)

- **Writing Activities** was the only category where the majority of items was taught in other instructional settings (72%) at the Kindergarten level. These activities were also mainly carried out in other instructional settings (65%) in Grade One classrooms.
Figure 14. Reported Basic Literacy Skills and Oral Language items by participating Kindergarten and Grade One teachers.

The table and chart illustrate the frequency of specific literacy and language activities reported by Kindergarten and Grade One teachers. The activities include:

**Basic Literacy Skills**
- Kindergarten Classrooms
- Grade One Classrooms

**Oral Language**
- Kindergarten Classrooms
- Grade One Classrooms

- **Work on letter sounds**
- **Work on phonological skills**
- **Work on phonics**
- **Teach sight (Dolch) words**
- **Discuss new/difficult vocab.**
- **Work on letter names**
- **Teach songs, nursery rhymes, poems**
- **Retell stories**
- **Perform plays, skits, puppet shows**
- **Use listening centre**

The chart uses bars to represent the frequency of these activities, with different colors indicating whole group settings and other instructional settings (one-on-one, independent, small ability-based groups).
Figure 15. Reported Skill Referenced Reading and Reading for Meaning items by participating Kindergarten and Grade One teachers.
Figure 16. Reported Writing Activities by participating Kindergarten and Grade One teachers.
CHAPTER 4: DISCUSSION

This study set out to examine the ecology of early literacy practices with a focus on instructional grouping, framed by Bronfenbrenner’s spheres of influence (1976, 1994) and an organizational approach adapted from Buttaro et al. (2010). Using in-depth, mixed-methods case descriptions of 13 primary classrooms across the Greater Toronto Area, the practice of ability grouping was explored as an element of complex, multi-layered classroom systems, shaped partly by overarching macro-level government-mandated programs and guidelines. To observe and understand teachers’ perceptions and implementation of various student grouping structures for literacy instruction, classroom-level data from the seven Kindergarten and six Grade One participating classrooms were collected using both qualitative and quantitative tools, and organized into three dynamic levels derived from the work of Bronfenbrenner (1976, 1994) and Buttaro et al. (2010): structural/physical constructs (classroom physical layout and literacy environment, availability of resources and support personnel), social/behavioural perceptions (teacher-perceived effects of grouping on student outcomes, beliefs and previous experiences with grouping), and instructional/pedagogical practices (literacy instruction dosage and content).

This chapter begins with a discussion of the overall study findings across all three of the aforementioned levels making up the microsystem of the classrooms under study. The next section discusses major findings pertaining to prevalence and effectiveness of whole class grouping for literacy instruction in Kindergarten and Grade One classrooms, and the role of additional adults in the classroom ecology. Implications for evolving Kindergarten policy in Ontario are also considered. Throughout this chapter, references are made to relevant macro-level government-mandated policies and programs in order to illustrate convergences and divergences in implementation at the local classroom level.
4.1 Overall Discussion of Findings

4.1.1 Structural/physical constructs.

Not surprisingly, given the play-based nature of the curriculum document in effect at the time of data collection, which advised that “children should be provided with large blocks of time and adequate space to work at learning centres” (The Kindergarten Program (Revised, 2006), p. 23), Kindergarten classrooms in this study were reported to have significantly more activity centres (e.g., dramatic play, blocks, stuffed animals) than Grade One classrooms. On the other hand, Grade One teachers displayed significantly more student-centred literacy items (e.g., student projects and writing) than Kindergarten teachers; furthermore, daily schedule of activities/events, reference books (e.g., dictionaries), and chalk boards were reported in all Grade One classrooms while only found in fewer than half of their Kindergarten counterparts. These findings gathered through the 54-item Classroom Literacy Environment Checklist, hint at the different structural elements across the two grades. The widespread presence of activity centres in all Kindergarten classrooms, which require the organization of students into small groups, are an important part of the context for teachers’ decisions to implement grouping at this level and highlight a key point about ecology affecting grouping. On the other hand, Grade One classrooms’ shift away from these centres towards structured daily schedules and literacy environment items explicitly supporting reading and writing development, highlight the move away from the play-based learning environments of Kindergarten classrooms. Indeed, according to Pelletier (2011), “children’s interactions with environmental print are instrumental in forming understandings about the purposes of print in daily life” (p. 1) in this first year of compulsory schooling in Ontario. Nevertheless, reports from all thirteen participating classrooms about the
predominance of area rugs, typically reserved for whole group activities, point to the physical classroom structures encouraging whole group instruction in both Kindergarten and Grade One.

In addition to examining the physical organization and environmental print available in participating classrooms, the presence of additional adults was also of interest given that “this extra adult support for the youngest pupils in primary school makes some sense developmentally” as “young children are less able to remain on-task, are easily distracted and may find it difficult to learn individually or independently together with peers” (Baines, Blatchford, & Kutnick, 2003, p. 29). In accordance with this idea, a number of teachers in this study expressed the importance of additional adult presence to implement ability groups during one-on-one interviews. However while 77% (6/7 Kindergarten teachers; 4/6 Grade One teachers) reported volunteers, student teachers, teacher aides (e.g., Education Assistants), or special education teachers in their classroom during literacy instruction at some point during the two-week study period, there was no clear connection between additional adult presence and the use of ability groups at either the Kindergarten or Grade One levels. This finding not only reveals a discrepancy between teacher beliefs and actual practices, but also suggests that in classrooms across Ontario and elsewhere, the presence of additional adults may in fact be an underutilized resource. For example, in their case studies of Interactive Group classrooms “characterized by the involvement of diverse adults who do not necessarily have professional teaching experience”, Valls and Kyriakides (2013) found that “the more diverse the group of adults [in the classroom], the more diverse ways they have of contributing to children’s learning” (p.25). Crucially, these authors argue that additional adults who are representative of the diversity of the school community can potentially “help students move away from stereotypes and improve cohesiveness as well as learning. Immigrant children and children with
different cultural and linguistic backgrounds [can] benefit from the presence of adults with a similar background, as, for example, such cultural continuity bridges language gaps, helping migrant students engage more fully and ultimately to complete the same activities as their peers” (p. 29). This is particularly significant when considering the growing diversity of student demographics across Canada, and long-standing concerns about the potential ethical repercussions of ability grouping for minority students disproportionately found in low-ability groups (e.g., Buttaro, Catsambis, Mulkey, & Steelman, 2010; Chorzempa & Graham, 2006; Tach & Farkas, 2006). In this changing educational context, the presence of additional adults in classrooms may therefore highlight a potentially promising opportunity; the role of additional adults is hence further discussed in Section 4.3.

4.1.2 Social/behavioural perceptions.

During one-on-one interviews (7-11 questions; 30-45 minutes in duration), all Kindergarten and Grade One teachers highlighted instructional factors as the predominant rationale for grouping students, reasoning that small groups provide opportunities for differentiating instruction, tracking student progress, providing additional time and support to struggling students and challenging those excelling, in the hope of ultimately creating a “level playing field”. The predominance of differentiated instruction as the rationale for grouping corresponds to existing literature which highlights that dividing a classroom into smaller instructional units allows “teachers to adapt learning outcomes, instructional activities, and pace, to better meet students’ individual characteristics” (Chorzempa & Graham, 2006, p. 529). Other teacher rationales for grouping included meeting students’ social and emotional needs (e.g., fostering social skills, building confidence in ability, alleviating student frustration/anxiety), and student compatibility and classroom management. This is in accordance with findings by
Hallinan and Sørensen (1985) that grouping encourages interactions among students promoting subject mastery and social development such as close friendships. Finally, principal encouragements/school board mandates/professional development opportunities, as well as natural age division (Kindergarten classrooms only: Junior vs. Senior Kindergarten students) also motivated teachers’ decisions to implement ability grouping.

While mesosystem influences – direct interactions between the different elements of the individual’s various microsystems (Bronfenbrenner, 1976) – such as principal encouragements, were not a focus for this study, some explicit references by teachers to these factors affirms the importance of Bronfenbrenner’s spheres of influence and teachers’ awareness and sensitivity to the broader ecology surrounding their classroom microsystem. This finding also opens up questions regarding the extent to which mesosystem influences (e.g., pressures from school principals or school board mandates) play a role in how government-mandated policies and programs are mediated in classroom ecologies. For example, Buttaro, Catsambis, Mulkey, and Steelman (2010) theorized that ability grouping may be a result of school principals and teachers “maneuvering to secure resources or meet goals mandated by higher organizational levels” and that “pressures from outside the school, or school administrators’ own concerns over school performance are behind the use of ability grouping practices” (p. 1329). While these factors were not explicitly probed in this thesis, it is possible that district school boards may interpret Ministry expectations differently given their responsibility to provide “education programs that meet the needs of the school community” (Ontario Ministry of Education, 2009) and hence contribute to variability in teacher practices. Furthermore, principal influences may become more ingrained given the New Teacher Induction Program (NTIP) implemented in 2006-2007, which provides new teachers with another year of school-based professional development and
support to “determine the content and method of delivery of each element specific to the new teacher’s needs” (Government of Ontario, 2010, p. 8). According to the Ontario Ministry of Education, NTIP “depends on principals to exercise a critical role as catalysts for professional development” and “the principal of the school to which the new teacher is assigned is responsible for his or her NTIP”, to “develop other leaders in their schools by working closely with and relying on experienced teachers who may serve as mentors” and to “complete teacher performance appraisals for their new teachers” (p. 11). Furthermore, ability grouping may also be a by-product of other district school board-mandated strategies – for example, the expectation for use of the Developmental Reading Assessment (DRA) and/or guided reading could either lead to, or even necessitate, placing students into smaller groups by ability. Finally, another point of consideration may be that teachers would not necessarily be open to sharing any potential contradictions between their own beliefs and official guidelines mandated by their district school board and/or school officials; however this could be explored in research by incorporating direct perspectives from relevant board or school personnel (e.g., via principal interviews).

In relation to province-wide guidelines, rationales for grouping students by ability provided by teachers in this study roughly correspond to the Ministry’s guidelines of determining grouping purpose and duration “by a number of factors, such as the length of time the children have been in a school setting; the strengths, needs, and interests of the children; and the focus of instruction” (Ontario Ministry of Education, 2006, p. 22).

In terms of teachers’ perceptions of the potential effects of grouping on students’ classroom behaviours, learning efforts, and self-esteem, Kindergarten teachers believed their students to be “too egocentric” to notice group differences, while Grade One teachers believed
their were “intuitive” or sensitive to group differences. These teacher responses appear to be in line with studies that have suggested “Kindergarten children do not have stable and differentiated concepts of their own ability; these ideas emerge only in later grades as children experience both cognitive changes and classroom environment changes” (Hong et al., 2012, p. 84). Moreover, Pallas, Entwisle, Alexander, and Stluka (1994) reason that “it may not be appropriate” to expect young children (in their study, Grade One students) to be aware of group differences given that their “understanding of the links between present circumstances and future opportunities is probably limited” (p. 31). More interestingly, the authors go on to theorize that grouping is more likely to affect adult perceptions “who have been more extensively involved in schooling and have had wider exposure to social norms and expectations” and in support of this, found that “children in higher-ranked reading groups were perceived by their parents and teachers as more competent than were similar children in low-ranked groups, often independent of their actual performance” (p. 43). Indeed these perceptions can find their way to classroom instruction even before students begin school. In her study of 72 Canadian Kindergarten teachers, Lynch (2010) found that teachers perceived that students from low socio-economic status (SES) backgrounds “did not have the same level of literacy knowledge as students from families of higher-SES backgrounds” (p. 164) and that these beliefs persisted to the end of the school year. Given the potential impact of such perceptions on teachers’ expectations of student ability and instructional goals, Lynch’s findings support the value of examining teacher perceptions in terms of ability grouping.

In convergence with broad Ministry guidelines to “organize flexible, temporary groups for a variety of literacy activities and allow for change as needed” (Ontario Ministry of Education, 2003, p. 403), Kindergarten teachers in the present study believed grouping flexibility (changing
group composition on a regular basis) would help prevent the development of negative stigmas associated with grouping. Kindergarten teachers further reported revising grouping composition in response to changes in student academic ability (e.g., “improved ability” and hence requiring “additional challenges”), compatibility (“avoid conflicts” between students “not getting along”), and to meet students’ social and emotional needs. Grade One teachers on the other hand, reported moving students from one group to another only when students displayed a change in academic ability. This sole focus on academic achievement is somewhat surprising given that these teachers perceived their students as “intuitive” particularly in terms of their group status; however, Grade One teachers emphasized the importance of pace, differentiated instruction to account for different strengths and abilities, and reminding their students that “everyone is different and good at different things.” This is in line with Monzo’s summary that “students range in reading ability. Knowing so is not a negative experience if students are taught that reading ability is acquired at different rates and that it is not an indication of intelligence or worth” (Flippo, 1999, Chapter 6: “My Experiences as a Bilingual Teacher”, p.67-80)

4.1.3 Instructional/pedagogical practices.

Using the daily Instructional Logs, participating teachers reported on their instructional routines (duration, format, content) in the context of various student grouping types, including whole group, one-on-one, and ability-based groups. Given Hong et al.’s (2012) findings that highlighted the complex relationship between instruction time and homogenous ability grouping, data were not only collected on how often groupings were used, but also how much instruction time students spent in each setting. Furthermore, specific types of literacy content were also considered. Logs were collected for a total of two weeks, on five consecutive days during each of the Fall (November/December) and Spring (April/May) data collection periods.
In convergence with the Ontario Ministry of Education’s guidelines (2003) of 45-60 minutes of daily literacy instruction time, Kindergarten teachers reportedly devoted a mean of 57 minutes of their half instructional days to literacy-related activities. Grade One teachers, whose classrooms were observed for the entire day, reported nearly double that time with a mean of 120 minutes, also complying with Ministry expectations of 90-120 minutes of daily literacy instruction time for the first compulsory year of schooling in the province. Whole group and one-on-one instruction occurred on most days in all classrooms; whole group instruction was reported on a mean of 9/10 days and one-one on a mean of 7/10 days by both Kindergarten and Grade One teachers. Although on average, Grade One teachers used ability-based groups 1.5-2 days more frequently than Kindergarten teachers, these differences did not reach significance in this small sample.

In Kindergarten classrooms, while the mean use of whole group instruction in days was only significantly higher than small ability-based groups, literacy instruction time spent in this setting was significantly higher than all other grouping types including one-on-one instruction. Furthermore, with the exception of writing activities (e.g., dictating stories to an adult, journal entries), Kindergarten teachers reported that nearly over two thirds of all literacy content instruction in their classroom took place in a whole group setting. Therefore in these classrooms, whole group instruction was not only used on the majority of observation days, but teachers also spent the bulk of their literacy instruction time and taught the greatest amount of literacy content in this setting. Given that there were no statistical differences in instruction time between the Fall and Spring terms for any of the grouping types, there was not enough evidence to support the conclusion that Kindergarten programs move from more play-based to skills instruction as the year progresses, as previously suggested by Corter and Park (1993).
In contrast to their Kindergarten counterparts, Grade One teachers reported more balance between literacy content taught in whole group vs. other instructional strategies (one-on-one and ability-based groups, as well as independent learning). While there were no significant differences in how frequent the different student grouping types were used, Grade One students reportedly spent more time in whole group settings compared to one-on-one instruction and mixed-ability groups, but not compared to same-ability groups. Nevertheless, only a small percentage of the overall reported literacy content was taught in same-ability groups (13%) compared to the percentage of content taught in whole group instruction (42%). Therefore, while literacy instruction time spent in same-ability groups may have been similar to whole group settings across the Grade One classrooms, students were still more likely to spend the bulk of their literacy learning time in whole groups.

One way to interpret findings related to literacy content taught in whole group vs. small-ability groups in Kindergarten and Grade One classrooms could be that as students progress through the academic year, and the school system, classroom learning shifts from the introduction of a broad range of literacy activities and skills in whole group settings to deeper engagement with the content using other (smaller) grouping arrangements. For example, in their study of over 4,000 student groupings across England’s Kindergarten to secondary level classrooms, Baines, Blatchford, and Kutnick (2003) found that “as children got older, classroom tasks were more likely to involve the application of existing knowledge and less likely involve practising skills” (p. 9). In Kindergarten classrooms in this study, Writing Activities was the only category where the majority of items were taught in instructional settings other than whole group instruction (72%); in fact writing words from dictation took place in same-ability groups in over one third of the instances it was reported by participating teachers. Given that the
curriculum document in effect at the time of data collection included the overall expectation for students to “communicate in writing, using strategies that are appropriate for beginners” (The Kindergarten Program (Revised, 2006), p. 35), the use of small guided writing groups\textsuperscript{17} may have been an effective strategy to support student acquisition of writing strategies for these “early writers” (Ontario Ministry of Education, 2005). In Grade One on the other hand, in instances when it was reported, performing plays, skits and puppet shows most frequently took place in same-ability groups compared to all other instructional settings. Socio-dramatic play such as these student-led performances in small groups “can provide a “bridge” to printed language … enhance children’s comprehension of stories through “re-enactments”’” and have even been “reported to foster self-regulation” in young children (Pelletier, 2011, p. 2). Therefore, the narrow content coverage in same-ability group settings in participating classrooms may have served as opportunities for the application of literacy skills introduced in whole group settings. For example, in both Kindergarten and Grade One, listening to an adult read, and songs, nursery rhymes and poems were contents almost exclusively taught in whole group settings. Nevertheless, the striking prevalence of whole group settings for literacy instruction at both the Kindergarten and Grade One levels requires further consideration and is discussed in Section 4.2.

Furthermore, according to Hong and Hong’s (2009) analysis of the U.S. Early Childhood Longitudinal Study – Kindergarten cohort data set, same-ability grouping benefits Kindergartners’ literacy learning (as compared to no grouping) only when teachers spend more than one hour per day on reading and language arts instruction. Similarly, Dreeben and Barr

\textsuperscript{17} According to the Ontario Ministry of Education (2005), “guided writing is a strategy that gives students the opportunity to review a recently taught writing skill in a small-group setting and then to apply the skill through independent writing” (p. 5.3)
(1988) found that over an hour of daily instruction time contributed to same-ability groups of Grade One students “learning a substantial amount of demanding curricular material” (p. 56). With teachers in this study reporting means of 16 minutes/use at the Kindergarten level, and 41 minutes/use at the Grade One level, results could relate to alternate rationales for using ability groups as articulated by participating teachers (e.g., as a class management tool). This varied use of ability-based groups could once again point to a discrepancy in teacher-reported perceptions and actual observed classroom practices as all teachers emphasized instructional factors for grouping their students by ability. Furthermore, in relation to literacy instruction time in small groups, it is worth noting that realistically, the proportion of teacher/instruction time spent in ability groups for individual students is likely much lower than the overall time in small groups, because that time is typically divided among several groups taking place at the same time. This is even more so the case during one-on-one instruction. However, in whole group instruction, which includes all children in the class, it could be reasoned that every child is part of the larger proportion of time spent in whole class instruction every time it is used. Does this then mean that whole group instruction should be the predominant instructional arrangement in the early grades? The following section considers the effectiveness of this setting in Kindergarten and Grade One, given findings from this study and relevant existing literature.

4.2 The Prevalence and Effectiveness of Whole Group Literacy Instruction in Kindergarten & Grade One Classrooms

Although the intended focus of this thesis was to shed light on the use of ability-based groups in the context of a sample of Canadian Kindergarten and Grade One classrooms, results showing the pre-eminence of whole group literacy instruction deserves further attention. Interview data collected from participating teachers in this study reasoning that ability-based
groups, and in some cases one-on-one instruction, can create a “level playing field” for all students, would suggest that students were spending a great deal of their literacy learning time in small group or individual instruction. This was in fact not observed; particularly in Kindergarten classrooms, where with the exception of writing activities, anywhere between 59% to 79% of all literacy content was taught in a whole group setting. While Grade One teachers reported comparatively lower literacy content coverage in whole group instruction (Range = 31% to 53%), overall mean use across study days, and time spent in this setting, still remained higher than all other instructional arrangements (one-on-one, independent, ability groups). These results diverge from Ministry expectations that define an effective literacy instruction program as one that includes a “balance” of “whole-class and small-group instruction as well as large-group, small-group, and individual activities” (Ontario Ministry of Education, 2003, pp. 392, 13.16). At the same time, they are in line with those found by Taylor et al. (2002), who observed two randomly-selected teachers from Kindergarten to Grade Six, across eight U.S. schools representing “demographic and geographic diversity” (p. 271), and reported the greater use of whole group instruction compared to small group instruction across all primary grades.

Given the Ministry’s guidelines and teachers’ expression of the importance of grouping in allowing for differentiated instruction, the observed prevalence of whole groups for literacy instruction across all Kindergarten and Grade One classrooms points to differences in teacher-reported beliefs and actual practices (as observed by the research team) and are particularly worth discussing given the existing literature on the effectiveness of whole group instruction. For example, in their study of 36 children enrolled in seven full-day Kindergarten (FDK) sites in the Greater Toronto Area (GTA), Hawes, Gibson, Mir, and Pelletier (2012) found that children were least engaged during whole group instruction when compared to small group, play, and
even transition periods. More recently, Timmons, Pelletier, and Corter (2016) reported similar findings for a more recent sample of 40 children across nine FDK sites in the GTA, concluding that children were not only more engaged during small group activities compared to whole group settings, but that they also responded significantly more to opportunities for self-regulation in this context. With Kindergarten and Grade One students still developing essential self-regulation capacities such as self-control, persistence, and emotional and attention regulation (Pagani, Fitzpatrick, & Parent, 2012), it is not surprising that some children would find it challenging to meet the expectations of whole group instruction, which include following classroom rules and routines (e.g., sitting quietly with legs crossed, raising hand to answer questions), accepting guidance and limits, listening to gather information and making appropriate responses, and understanding and following teacher directions (Early Childhood Center (ECC), 2010; Timmons, Pelletier, & Corter, 2016). Moreover, Myhill (2002) found that in Grade One, underachieving students, particularly boys, are consistently less likely to display positive whole group interactions including less willingness to participate in collective response (teacher inviting all students to answer a question as a group), and to volunteer a response through putting up their hands, as compared to their high-achieving counterparts. In fact, all students ask very few questions in a whole group setting because this arrangement “‘militates’ against interruptions and students often find it hard to fit a question into the ongoing cycle” (Dillon, 1988, p. 13 as cited by ECC, 2010). When questions are asked, they tend to be procedural in nature (e.g., permission to go to the bathroom) rather than related directly to the topic of discussion. Furthermore, Hardman, Smith and Wall (2003) found that rather than encouraging or extending contributions made by students during whole group literacy instruction, the 70 teachers observed as part of their study, spent the majority of their instruction time on explaining concepts; when questions were posed, they were “closed and often required
convergent factual answers and pupil display of (presumably) known information. This style of teacher questioning therefore seeks predictable correct answers and only rarely are teachers’ questions used to assist pupils to more complete or elaborated ideas” (p. 212). In addition to organizational and behavioural management demands placed on teachers, and the low engagement (particularly amongst underachieving students) and limited opportunities for cognitive development for students, whole group instruction has been also found to offer “few opportunities for peer-to-peer interaction” (Early Childhood Center (ECC), 2010, p. 3).

Finally, while the Ministry recommends “balancing” various student grouping structures in ensuring an effective literacy program in Kindergarten to Grade Three, teachers share the sentiment that the Ministry and the Board, “don’t always so much talk about what that means or what that looks like. [Curriculum documents] talk general strategies but nothing particular.” This is in line with Parekh, Flessa, and Smaller’s (2016) summary that “although many goals are set centrally [by the Ministry of Education], the path to achieving those goals is not prescribed” (p. 69). As observed in this study, when left to their own devices, some teachers used whole group instruction time to target one level; as one Kindergarten teacher described, in whole group learning, she “aim[ed] towards the low-middle range and then [had] extensions available…you show a developmental continuum, show least difficult things first and then proceed in a step-based progression to the most advanced work.” This excerpt is consistent with Hong et al.’s (2012) claims that “teachers are usually equipped with curriculum, materials, and pedagogical skills suitable for teaching students in the middle of the ability distribution” (p. 83). Therefore these teacher comments highlight the need for classroom-level implementation strategies that will allow them to use various grouping structures for literacy instruction in an effective way for students of all abilities. In terms of whole group instruction, according to a series of studies
conducted by Indiana University’s Early School Readiness Series (2010), given the demanding behavioural and academic expectations this setting places on students, it requires careful use. In their report, they advise pre-school teachers of “three key strategies” to consider as they prepare students for their transition to Kindergarten and the use of whole class instruction (p. 5): (1) how frequent and for how long whole group instruction is used – this is particularly relevant in Kindergarten and Grade One as students enter their earliest stages of formal education; (2) the focus and pace of instruction – this increases in intensity throughout the early years; and, (3) the use of direct instruction, as well as feedback, based on appropriate behavioural expectations. To add to this list, Hardman, Smith, and Wall (2003) argue that “teachers will need to pay attention to their use of questions and introduce alternative conversational tactics to recitation … (e.g. probing, uptake questions, pupil questions, teacher statements)”; however in doing so, “monitoring and self-evaluation will need to become a regular part of in-service training so as to give teachers a degree of ownership of the process of school improvement” (p. 213).

4.3 The Role of Additional Adults in the Classroom

Grouping, and the logistics of managing small groups and individual instruction, would reasonably benefit from the presence of additional adults in the classroom; as Baines et al. (2003) summarize, “adult support of groupings is essential with regard to guidance, instruction and support for learning, but also from a practical point of view in terms of effective management of behaviour and attention” (p. 14). In line with this argument, through their repeated observations of eight first- and second-grade U.S. classrooms that used ability groups for reading, Grant and Rothenberg (1986) found that in all classrooms, teacher time with a particular reading group was interrupted by either children outside the group, and/or by the teacher when having to help or discipline these children. Given the repercussions in terms of
teacher time and attention when dividing a classroom into smaller groups, or even for individual instruction, it was reasoned that the presence of additional adults would encourage the use of this instructional practice. However, although nearly all participating Kindergarten and Grade One teachers reported the presence of additional adults (e.g., volunteers, Education Assistants, student teachers, parents) in their classroom, and the majority reflected on the important impact of this resource in their decision to use grouping, there was no connection between the reported presence of adults and the use of ability groups. Therefore, in order to better understand how these “additional bodies” contributed to the overall classroom ecologies in this study, interview data were reviewed for specific references, in relation to relevant existing literature.

At both the Kindergarten and Grade One levels, participating teachers highlighted individualized accommodation efforts made possible by the presence of volunteers, consistent with previous findings that elementary level students are “most likely to work on individual work either alone or with the support of an adult” (Baines, Blatchford, & Kutnick, 2003, p. 9). For example, one Kindergarten teacher noted encouraging advanced readers to read with a volunteer, while another pulled out students who required extra help to work with a volunteer (for example, on letter sounds). In Grade One, “struggling readers [were paired] with an Education Assistant or student teacher to be reading everyday” or volunteers were employed to assist with “scribing” for the “struggling readers [who] are generally weak writers.” “High-flyer readers” also benefited from additional adult presence; as one teacher described, “I will have volunteers go out and teach how to read chapter books or the librarian has worked with the high-flyers.” As part of the Deployment and Impact of Support Staff (DISS) Project – “the largest study of teaching assistants and other school support staff carried out in the world” (University of London, 2009) – Blatchford, Bassett, Brown, and Webster (2009) conducted
systematic observations of 27 primary and 22 secondary schools in England and Wales, finding that while “pull-out sessions by support staff” for “typically the few pupils in most need” allowed the teacher to attend to the rest of the class, it also meant that “individualized attention was provided not by teachers but by support staff, and, moreover, it was provided instead of interactions with the teacher” (p. 682). Therefore struggling learners were at the potential risk of “missing out on interactions with the teacher and contact with the mainstream curriculum,” further impeding their academic growth. In the current study, one Kindergarten teacher appeared to reverse this trend. Her classroom, which was physically divided into two interconnecting rooms, meant that the teacher relied on the assistance of parents (who “frequently” volunteered), student teachers, and Education Assistants in supervising one room, which contained the activity centres, while she remained in the other with literacy centres and the carpet (whole group instruction space). According to this teacher, this allowed her to spend time with individuals and small groups she felt “need the enrichment and need to be pushed along”.

In addition to the documented role of additional adults in assisting with individualized student accommodation efforts, perhaps the most obvious advantage of their presence in the classroom is the divided responsibility of classroom management. According to Blatchford et al. (2009), additional adults in the classroom “can take on responsibility for pupils who contribute most to classroom disruption, therefore reducing the overall amount of talk dealing with negative behaviour,” and found that in their sample of primary schools, students “were 30% more likely to be on-task with a member of support staff present” (p. 678). While student behaviour was not quantified in this study, classroom observations did reveal the role of Education Assistants in classroom management in Grade One, including reinforcing classroom routines such as transitions and modeling literacy activities (writing a thank you letter to a loved
one). Teachers were also cognizant of the importance of additional adults in making sure “you don’t miss anyone.” One Kindergarten teacher further expressed the “difficulty” of “organizing the day around having 20 minutes alone with a group.” while a Grade One teacher believed that dividing the classroom into smaller groups simply “can’t happen without an extra adult in the room.” Related to these claims, perhaps a part of teacher sentiments regarding classroom management can be traced back to inadequate teacher training. While the effects of Ontario’s new enhanced teacher education program are yet to be rigorously examined, in their sample of 122 teacher preparation programs in the U.S., the National Council on Teacher Equity (Greenberg, Putman, & Walsh, 2014) concluded that though most appear to spend some time on classroom management strategies, this instruction is often scattered or incomplete, not based on relevant empirical evidence, or disassociated from authentic classroom experiences.

In summary, additional adults, believed by the majority of participating teachers to be a necessary condition for grouping students, were most commonly involved in facilitating the implementation of accommodation strategies (working individually with struggling or high ability students) and general classroom management, highlighting the potentially underestimated value of this resource. For example, while beyond the scope of the data presented here, a related pertinent question may be to consider the socio-cultural and ethnic background of additional adults in the classroom, whose diversity could not only contribute to student learning, but more crucially has the potential capacity to counteract some of the ethical concerns of grouping as pondered earlier (Valls & Kyriakides, 2013). More detailed examination of such issues could have implications for policy and program implementation in the progressively growing multicultural education context of Ontario classrooms.
4.4 Implications for Evolving Kindergarten Policy in Ontario

The changes to the Ontario educational context subsequent to this study, pose a number of interesting questions about how the picture of literacy instruction presented here may have changed. Observations from this study provide a snapshot of the structures and processes that existed prior to the implementation of Ontario’s full-day Kindergarten (FDK) program and allow for considering questions such as whether the pairing of two adults with different professional training changes the nature of grouping strategies and other literacy practices, and whether the play-based, integrative curriculum emphasis makes it more difficult to isolate elements of literacy practice such as time devoted to literacy. Furthermore, will the updates to the provincial pre-service teacher education program have any impact on related training opportunities for blended Kindergarten educator teams, and given NTIP, will differences between schools in the implementation of various grouping strategies increase? Finally will this study’s findings of the widespread prevalence of whole class grouping in the early years mean that it will continue to dominate literacy instruction and hence result in an even further decline in ability grouping?

*Full-Day Kindergarten, Blended Staffing Model, and The Kindergarten Program* (2016)

In 2014, Ontario became Canada’s first province to complete the roll out of its FDK program in approximately 3,600 schools across its broad geographical span. In addition to Kindergarten timetables doubling, certified teachers and registered early childhood educators (ECEs) are now required to work together in educator teams to deliver the new inquiry and play-based *Kindergarten Program* (2016). Furthermore, for a fee, before- and after-school programs may be provided where there is parental demand (from at least 20 families). These significant changes to the Kindergarten program structure and curriculum, characterized by then Minister
of Education Liz Sandals as “the biggest transformation our education system has seen in a generation” (Government of Ontario, 2014), have already been the subject of a number of empirical studies investigating the effects of FDK on student achievement and the new working relationship between teachers and ECEs. Of particular relevance to this study however, is the question of whether the presence of at least two adults in the classroom has any impact on the use of student groups for the specific purpose of classroom instruction, particularly given ECEs’ knowledge of early childhood development which extends beyond that of traditional additional adults in the classroom (e.g., volunteers, student teachers) and their professional beliefs and practices. The Ministry seems to think so and has highlighted that “with two qualified professionals in the classroom for the full school day, there is more time for individual and small group instruction” and that “more students will get one-on-one attention and opportunities to learn together in small groups”; however whether this translates to practice, remains to be seen. Given that nearly all participating teachers in this study reflected on the importance of the presence of additional adults in their decision to use grouping, will ability grouping become the new norm in FDK classrooms? The answer to whether two adults in every Kindergarten classroom changes grouping practices will likely not depend on the number of adults alone. Instead, educator beliefs will no doubt be a force. For example, data collected from FDK classrooms in Ontario (Timmons, 2017), show that Kindergarten teachers and ECEs have different views when it comes to grouping. While approximately half of the teachers surveyed (8/15) used same-ability groups and 75% of these cases were used solely for literacy instruction (in this thesis, differences between Junior and Senior Kindergarten students were one of the rationales provided by Kindergarten teachers for grouping), none of the participating ECEs expressed support for this instructional practice. Instead, ECEs favoured heterogeneous (mixed-ability) or flexible groupings. Interestingly, emerging from surveys collected from both group of
professionals was the concept of “no plan” grouping where teachers and ECEs felt that the FDK program lent itself to an environment appropriate for children to decide where they wanted to play. Given these findings, will Kindergarten classrooms eventually evolve away from the practice of same-ability grouping altogether? Will this result in more time for individual or mixed-ability groups or does play mean less intentional instruction in grouping structures of all types? Finally, given the widespread prevalence of whole class grouping by participating teachers in this study, how will whole group instruction fare?

The Enhanced Teacher Education Program and The New Teacher Induction Program (NTIP): Implications for Teachers’ Use of Ability Grouping for Literacy Instruction

All 13 participating teachers in this study were certified at least four years prior to the start of data collection, and with the exception of two having additional graduate-level qualifications (Master of Education, Master of Arts in Child Study and Education), had completed a one-year pre-service program. Starting in September 2015, after data collection was completed for this study, Ontario teacher candidates began facing a 50% reduction in program admissions across the province’s 16 accredited Faculties of Education. While this change was mainly implemented in response to the imbalance in the existing supply-demand chains (Government of Ontario, 2013), it begs the question of whether fewer admission opportunities will have any impact on the quality of teaching candidates. In 2003, the Education Commission of the States (ECS), set out to review “the entire body of solid research on teacher preparation to ascertain what evidence the research truly provides and what its implications are for policy” (p. 1) based on data from 92 applicable studies. Amongst its findings, the report suggests that “raising academic requirements for admission to teacher preparation programs would reduce the pool of teacher candidates, particularly minorities” (p. 5). With one out of every five Canadians self-identifying as a visible minority (and 92.5% of that population living in Ontario), and immigration expected
to become “Canada’s only source of population growth” in less than 15 years (Statistics Canada, 2008), we will see an ever-growing student population not only differing in academic skills and needs, but also in linguistic, cultural, and socio-economic backgrounds. Therefore a potential reduction in teachers from minority backgrounds could have further implications for related issues and pitfalls on ethics and effectiveness of grouping in diverse early grade classrooms.

In addition to reduced program admissions, Ontario’s new Enhanced Teacher Education Program is now double in length with additional practicum requirements (from 40 days to a minimum of 80 days or 400 hours) and various content enhancements (diversity, mental health and addictions, technology integration). According to a literature review conducted by Fong-Yee and Norme (2004), “education coursework is a more powerful predictor of teacher effectiveness than measures of expertise in content area subjects” (p.14). With half of the content in the Enhanced Teacher Education Program dedicated to developing further skills, such as classroom management, it will be interesting to see whether the use of ability-based groups and overall balance in the use of various grouping structures, as noted by the Ministry, will receive more attention and relevant training. More broadly, the content of pre-service and professional development (PD) opportunities in relation to literacy instruction and grouping for teachers and ECEs, as well as the specifics of how literacy instruction dose (e.g., time per day) will be understood by educators and monitored in FDK with its emphasis on play-based learning, are areas for future studies. Similarly, with the introduction of the New Teacher Induction Program (NTIP) starting with the 2006-2007 school year, schools and principals now have the opportunity to determine the content and delivery for professional development provided to new teachers. Given that none of the teachers in this current study had completed the NTIP, will this mean more frequent use and time spent in ability-based groups given that
four of the 13 teachers in this current study cited principal encouragements, school board mandates and professional development amongst their rationales for grouping? Furthermore, given the significant changes to Ontario’s Kindergarten Program discussed in the previous section, how will in-service and PD opportunities (e.g., provided by principals via NTIP) deal with literacy instruction and grouping practices for blended educator teams consisting of a teacher and an ECE? How can training traditions be unified on practices for early literacy? Finally, given that Ontario’s 72 diverse school boards are responsible for “developing education programs that meet the needs of the school community” (Ontario Ministry of Education, 2009), how will the school-based NTIP program affect the overall implementation of grouping strategies and other literacy practices?

4.5 Concluding Remarks

“The reality of classroom practice shows that, in spite of all the knowledge on group work and on its effectiveness, the application of this educational strategy in the daily classroom process is still under-utilized; a practical awareness that exploits all the possible potentials and benefits of group work in the classroom is somehow lacking. Indeed, research has still to focus its aims on integrating group work into “authentic” class settings” (Kutnick, Sebba, Blatchford, Galton, & Thorp, 2005, p. 53).

In partial response to the quote above, this study sought to provide empirical insight into the instructional practice of ability grouping for literacy learning, as it is perceived and implemented by a sample of seven Kindergarten and six Grade One teachers in the Greater Toronto Area. Ontario’s publicly-funded school system operates across a range of diverse district school boards and school authorities and while this thesis provides insight into a sample
of schools from two boards in the Greater Toronto Area, the overall study findings remain valid given the province-wide macro-level policy constraints.

In the broadest sense, the data point to gaps in guidelines and strategies that will equip teachers with the necessary knowledge and ability to effectively implement different grouping structures for literacy instruction within their unique classroom ecology. Indeed if province-wide curriculum expectations call for a “balance” between various grouping structures, teachers want to know “what that means or what that looks like.” Furthermore, this study points to differences between teachers’ expressed beliefs and actual observed classroom practices; notably, while grouping and individual instruction were viewed by some as “utopia”, whole group instruction reigned as the prevalent setting for literacy instruction at both the Kindergarten and Grade One levels. But is whole group instruction effective as the primary setting for literacy learning in the early grades, particularly given its demands on various facets of developing self-regulation abilities in this population? Moreover, even when teachers explicitly expressed that the presence of additional adults was the key to breaking the class into smaller groups (whether by same or mixed abilities), the presence of volunteers, Education Assistants, student teachers, and parents was mainly utilized for general classroom management and individualized accommodation approaches. Can the presence of additional adults be better utilized for implementing ability groups, particularly if they represent the community in the classroom?

The detailed case descriptions provided by this study illustrate the diversity in individual teacher practices, and their variable correspondence to policy and research literature when implementing grouping for literacy instruction. Furthermore, in looking ahead, data from this study elucidate structures and processes (teacher perceptions and practices) that existed before
the province-wide implementation of the full-day Kindergarten (FDK) program and raise questions about this new model in delivering play-based literacy learning considering FDK’s blended educator teams and the province’s new enhanced teacher education program.
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APPENDICES
Appendix A: Information Letter for Principals

Dear Principal,

We are researchers at the Ontario Institute for Studies in Education of the University of Toronto and we are conducting a research project on grouping practices in early reading instruction. This is an important area in education because how reading group practices are related to children’s long-term social and academic development has not been determined in the past research. We are interested to know whether teachers use ability grouping or other strategies for early reading. We would like to work with a small number of Kindergarten and Grade 1 teachers over the course of a year to examine grouping practices. We believe this research project will provide important information about teachers’ decision-making involving reading groups and will give us insights to help us analyze a large-scale longitudinal U.S. database involving grouping practices in kindergarten and Grade 1. We request your permission to conduct the project in kindergarten and Grade 1 in your school (assuming that one kindergarten teacher and one Grade 1 teacher will agree to participate).

Each participating teacher will be asked to complete a short daily “log” of reading instruction practices for two one-week periods in November and February/March and to have the program observed for a full day on two occasions, once in November and once in February/March. The teacher will also be interviewed two times for 30-45 minutes each about beliefs and practices in early reading instruction, educational background, and professional experiences. Trained graduate student researchers will carry out the data collection. Each participant will receive a $100 honorarium. This will go to the school c/o Principal to be used at the discretion of the participants for their class resources.

Participation in this project is strictly voluntary. Schools and teachers may choose to end their participation at any time. The name of your school and the name of the teachers will NOT be used in the study. All teacher participants and schools will be given a number code in order to maintain anonymity. All information pertaining to the study will be kept strictly confidential in a locked file in a research office at the University of Toronto, and will be available only to authorized research personnel. Five years following completion of the study, all raw data will be destroyed.

Results of the study will be available to all participants upon request. We will also share the results of the study with members of the research community and with interested school/centre personnel. It is the policy in all research studies to inform participants that in some legal cases, research records may be subpoenaed. Please note that such situations occur very rarely.

If you have questions or concerns, please feel free to call or email us. Thank you kindly.

Sincerely,

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ghong@oise.utoronto.ca  jpellter@oise.utoronto.ca  ccorter@oise.utoronto.ca
Appendix B: Information Letter and Consent Form for Teachers

Dear Teachers,

We are researchers at the Ontario Institute for Studies in Education of the University of Toronto and we are conducting a research project on grouping practices in early reading instruction. This is an important area in education because how reading group practices are related to children’s long-term social and academic development has not been determined in the past research. We are interested to know whether teachers use ability grouping or other strategies for organizing early reading. We would like to work with a small number of Kindergarten and Grade 1 teachers over the course of a year to examine grouping practices. We believe this research project will provide important information about teachers’ decision-making involving reading groups and will give us insights to help us analyze a large-scale longitudinal U.S. database involving grouping practices in kindergarten and Grade 1. We hope you will agree to become involved in this project.

If you agree to participate you will be asked to complete a short daily “log” of your reading instruction practices for two one-week periods in November and February/March and to have your program observed for a full day on two occasions, once in November and once in February/March. You will also be interviewed two times for 30-45 minutes each about your beliefs and practices in early reading instruction. You will be asked about your educational background and professional experiences. Trained graduate student researchers will carry out the data collection. You will receive a $100 honorarium at the end of your participation. This will go to the school c/o Principal to be used at your discretion for class resources.

Your participation is strictly voluntary. You may choose to end your participation at any time. Your name and the name of your school will NOT be used in the study. All participants and schools will be given a number code in order to maintain anonymity. All information pertaining to the study will be kept strictly confidential in a locked file in a research office at the University of Toronto, and will be available only to authorized research personnel. Five years following completion of the study, all raw data will be destroyed.

Results of the study will be available to all participants upon request. We will also share the results of the study with members of the research community and with interested school/centre personnel. It is the policy in all research studies to inform participants that in some legal cases, research records may be subpoenaed. Please note that such situations occur very rarely.

If you have questions feel free to call or email us. Please read and sign the attached consent form. The signed consent form is required for participation. Thank you kindly.

Sincerely,

Guanglei Hong, Ph.D. Janette Pelletier, Ph.D. Carl Corter, Ph.D.
(416) 923-6641x2481 (416) 934-4506 (416) 934-4575
ghong@oise.utoronto.ca jpellier@oise.utoronto.ca ccorter@oise.utoronto.ca
Consent Form

Please read and sign:

I have read the attached information letter.

I understand that I have been asked to participate in a research study on reading groups, conducted by Dr. Guanglei Hong, Dr. Janette Pelletier and Dr. Carl Corter of OISE/University of Toronto. I understand that my participation is voluntary and that I may withdraw from the study at any time without penalty.

I give my consent to participate in the research study: CHECK HERE: Yes_____.

________________________________________
Signature

________________________________________
Date
Appendix C: Information Letter for Parents

Dear Parents,

We are researchers at the Ontario Institute for Studies in Education of the University of Toronto and we are conducting a research project entitled, Effects of within-class homogeneous ability grouping in early reading instruction. We are interested to know about teachers’ decisions regarding the use of ability grouping in early reading. We would like to work with a small number of kindergarten and Grade 1 teachers over the course of a year to examine grouping practices.

During this school year, a researcher will come to observe your child’s class on two days, once in November and once in February/March; the observation will focus on how the teacher uses instruction for individuals, small groups, and the whole class. Children are not the focus of the observations and no information about specific children will be recorded. The teacher will be interviewed three times about reading instruction. For one week in November 2007, and again for one week in February to March 2008, the teacher will complete a short daily “log” about their reading instruction on each day. We will not collect data directly from the students. We expect that the researcher’s presence in the classroom during the observations and the teacher’s participation in the study will have minimal impact on teaching and learning. All information pertaining to the study will be kept strictly confidential.

If you have questions or concerns about this study, please feel free to call or email us. Thank you kindly.

Sincerely,

Guanglei Hong, Ph.D.  
(416) 923-6641x2481  
ghong@oise.utoronto.ca

Janette Pelletier, Ph.D.  
(416) 934-4506  
jpelletier@oise.utoronto.ca

Carl Corter, Ph.D.  
(416) 934-4575  
corter@oise.utoronto.ca
Appendix D: Daily Instructional Logs

DATE__________ GRADE LEVEL__________

In your **general** teaching today, please write the number of minutes that you spent working with the following (check “none” if applicable). If you taught morning and afternoon kindergarten, please report for the morning only.

Whole Class: ______ Minutes /OR ____ “None”
One-on-One Teaching ______ Minutes /OR ____ “None”
Small Group, Mixed Ability: ______ Minutes /OR ____ “None”
Small Group, Same Ability: ______ Minutes /OR ____ “None”

Please report on your reading and language arts instruction today. If you taught morning and afternoon kindergarten, please report for the morning only.

Total minutes you worked on reading and language arts today? ____Minutes /OR ____ “None”
Whole Class: ______ Minutes /OR ____ “None”
One-on-One Teaching ______ Minutes /OR ____ “None”
Small Group, Mixed Ability: ______ Minutes /OR ____ “None”
Small Group, Same Ability: ______ Minutes /OR ____ “None”

If you used same-ability reading groups, how many groups were there? _____ Groups

If you used same-ability reading groups, how many minutes did you spend with each same-ability reading group? Group 1 is the highest ability group; Group 2 is the second highest ability group; etc.

Group 1: ____Minutes Group 2: ____Minutes Group 3: ____Minutes Group 4: ____Minutes

Was there any of the following adults assisting with reading and language arts instruction today?

- Special education teacher
  - No____ Yes____ How many? ____
- Student teacher
  - No____ Yes____ How many? ____
- Teacher aide
  - No____ Yes____ How many? ____
- Volunteer
  - No____ Yes____ How many? ____

Was the majority of time you spent on reading and language arts **integrated** instruction covering other curriculum areas? Yes_____ No______
Checklist: Student Reading/Language Experiences

Did the students in this class participate in each of the following activities today? If not, please leave the row blank. If yes, was the activity conducted in the whole class, in mixed ability groups, in one-on-one teaching, or in same-ability groups? Please check under the appropriate column.

If same-ability grouping was used, please report the number of minutes each group spent on each activity. Group 1 is the highest ability group; Group 2 is the second highest ability group; etc.

<table>
<thead>
<tr>
<th>Activities</th>
<th>Whole class</th>
<th>Mixed ability groups</th>
<th>One-on-one teaching</th>
<th>Independent work</th>
<th>Same-ability Group # Minutes for each group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work on letter names</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Work on letter sounds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practice writing letters</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work on phonological skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work on phonics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teach sight (Dolch) words</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teach songs, nursery rhymes, poems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct attention to environmental print</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listen to adult read</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Read with an older child</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discuss new or difficult vocabulary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retell stories</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dictate stories to an adult</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Read aloud</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Read silently</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Read text with patterned or predictable text</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Read from leveled reading texts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Read text with strong phonetic patterns</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Read text with controlled vocabulary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Read thematic or literature based text</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Read self-selected books</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Write using invented spellings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Write words from dictation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compose and write stories or reports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entries in a journal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Publish student writing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work in a workbook or on a worksheet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use reading and/or writing centres</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use listening centre</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do a book-related project</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perform plays, skits, puppet shows</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix E: Teacher Interview Questions

**Fall Term**

1. Would you mind describing your educational background and professional experiences?
2. How were the students assigned to your class?
3. What is the composition of the class? (e.g., age, gender, race/ethnicity, socio-economic status, proportion of students with any types of special needs)?
4. What did you perceive this class to be as a whole in terms of students’ readiness for kindergarten/grade one learning?
5. How did you assess your students’ readiness at the beginning of kindergarten/grade one?
6. In reading and language arts instruction, how do you deal with children who are deemed not ready for reading in kindergarten/grade one?
7. In teaching reading and language arts, how do you accommodate the learning needs of students at higher ability levels?
8. Do you have specific goals for reading and language arts instruction that you attempt to accomplish by the end of kindergarten/grade one? Do you anticipate that all the students in this class will meet the goals? If not, what strategies will you use for children who may not meet the expectations?
9. Are you using a reading program? Does it have a leveled reading series? Does the program suggest grouping students by same ability?
10. In your past teaching experience, have you ever grouped students by ability in reading? If so, what was your experience?

**Winter Term**

1. What do you perceive the average level and diversity of student reading achievement to be in the class at this time of the year?
2. How do you assess the progress in reading and language arts that each student is making?
3. How do you adapt to the differences among your students in reading ability and in learning rate (i.e., some students are perhaps making slower progress than their peers in reading)?
4. With regard to accommodating student variation in kindergarten/grade one reading, what strategies do you think have been most effective in your program? Are there any strategies you are considering?
5. Does your school or board advocate any particular strategies for accommodating student variation in reading? What has been your experience with those strategies?
6. If your teaching strategies include individualizing reading instruction, do you do that one-on-one or by groups?
7. Are there any particular reason why you have chosen to group students by same ability or not?

*Skip questions 8 to 11 if the teacher does not group students by same ability:*

8. If you group students by same ability, how do you decide how many groups to have and which student should be assigned to which group? Is the decision based on the student’s performance relative to other classmates or is it based on some absolute criteria?
9. If you use ability grouping, how often do you group students for reading and language arts? How do you allocate time and other resources among the reading groups?

10. If you have grouped students by same ability in your reading instruction, have you moved any students from one group to another? If so, for what reason?

11. If you use ability grouping, do you think that students’ classroom behaviours, learning efforts, and self-esteem may be affected by which group they are in?
Appendix F: Classroom Observations: Running Record Template

[Data collection phase: month and year]

School: _________________________________  Grade: _________________
Teacher’s Name: ________________________________
Observations recorded by: ________________________________

<table>
<thead>
<tr>
<th>Time</th>
<th>Grouping Strategy</th>
<th>Teacher activity</th>
<th>Student Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix G: Guiding Questions for Classroom Observations

During classroom observation, please refer to the following questions to guide you as you take notes:

**Transitions**
- How much time is spent in transition before students are actively working on the assigned task?
- How are children informed about where they are to go and what they are to do?

**On-On-One Instruction**
- Who is leading the session (teacher, other adult, peer)?
- What is being taught?
- Did the teacher plan the session or is it occurring spontaneously (e.g., in response to a student query)?
- How long does the session last?
- What are the other students doing during this time?
- What are other adults in the room doing during this time?

**Small Group Work (2 children or more per group)**
- How many groups are formed?
- How many students are in each group?
- How is the composition of the groups decided (by the teacher in response to the demands of the particular task, by the students, according to a set grouping plan)?
- How much time is spent in small groups?
- Where are the students seated during small group work?
- What is the teacher doing?
- How much time does the teacher spend with each group?
- What are the students doing? Describe what is happening in each of the groups.
- What are other adults in the room doing?

**Whole Group Activities**
- Where are the students seated during whole group activities?
- How much time is spent on each whole group activity?
- What is the teacher doing?
- Is there any differentiation of instruction or of teacher expectations within the whole group setting (for example, are more capable students asked to spell more difficult words, or less capable students given greater support in searching for sight words in the morning message)?
- What are the students doing?
- What are other adults in the room doing?
Appendix H: Classroom Literacy Environment Checklist

School: ___________________________ Teacher: ___________________________
Grade: ___________________________ Observation recorded by: ________________

[Data collection phase: month and year]

Please place a check mark (✓) next to each of the following features of the literacy environment that is present in the classroom.

- Daily schedule of activities/events
- Weekly calendar
- Monthly calendar
- Student names
- Student birth dates
- Group rotation schedule
- Labels to identify objects/spaces
- Classroom rules
- Duties/helpers chart
- Weather chart
- Pictures/photographs
- Alphabet
- Word wall/word bank
- Reading/writing reference charts
- Reference books (e.g., dictionaries)
- Graphs
- Maps
- Teacher-authored stories/text
- Songs, poems on chart paper
- Student writing on display
- Student projects on display
- Student artwork on display
- Student workbooks/worksheets
- Student journals
- Theme-related print
- Book bins
- Chalk board(s) and chalk
- White board(s)
- Flannel board and cutouts
- Easel and char paper
- Accessible supply of paper
- Pencils, crayons, magic crayons
- Letter templates
- Letter stamps
- Magnetic letters
- Paint
- Playdough and cookie cutters
- Puppets/masks/costumes
- Computer
- Animals
- Reader’s/author’s chair
- Other

Centres

- Rug
- Listening centre
- Dramatic play centre
- Writing/drawing centre
- Arts & crafts centre
- Reading corner
- Puppet theatre
- Puzzles/game table
- Sand/water table
- Blocks
- Math centre
- Science centre
- Other

- Students’ desks in rows
- Students’ desks in groups
Appendix I: Classroom Case Level Data

Table 5
Frequency of various grouping types used (number of days) by individual participating Kindergarten (T1A-T7A) and Grade One (T1B-T6B) teachers during each of the data collection periods.

<table>
<thead>
<tr>
<th></th>
<th>Fall Term (/5 days)</th>
<th>Spring Term (/5 days)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Whole Group</td>
<td>One-on-One</td>
</tr>
<tr>
<td>T1A</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>T2A</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>T3A</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>T4A</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>T5A</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>T6A</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>T7A</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>T1B</td>
<td>4</td>
<td>N/A</td>
</tr>
<tr>
<td>T2B</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>T3B</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>T4B</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>T5B</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>T6B</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

Table 6
Mean literacy instruction time (minutes per usage instance) spent in various grouping types by individual participating Kindergarten (T1A-T7A) and Grade One (T1B-T6B) teachers during each of the data collection periods.

<table>
<thead>
<tr>
<th></th>
<th>Fall Term (mean minutes/use)</th>
<th>Spring Term (mean minutes/use)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Whole Group</td>
<td>One-on-One</td>
</tr>
<tr>
<td>T1A</td>
<td>30</td>
<td>8.3</td>
</tr>
<tr>
<td>T2A</td>
<td>26</td>
<td>6</td>
</tr>
<tr>
<td>T3A</td>
<td>19</td>
<td>8</td>
</tr>
<tr>
<td>T4A</td>
<td>35</td>
<td>15</td>
</tr>
<tr>
<td>T5A</td>
<td>84</td>
<td>27</td>
</tr>
<tr>
<td>T6A</td>
<td>23</td>
<td>28</td>
</tr>
<tr>
<td>T7A</td>
<td>38</td>
<td>12.5</td>
</tr>
<tr>
<td>T1B</td>
<td>40</td>
<td>N/A</td>
</tr>
<tr>
<td>T2B</td>
<td>42</td>
<td>25</td>
</tr>
<tr>
<td>T3B</td>
<td>57</td>
<td>58</td>
</tr>
<tr>
<td>T4B</td>
<td>50</td>
<td>47</td>
</tr>
<tr>
<td>T5B</td>
<td>90</td>
<td>10</td>
</tr>
<tr>
<td>T6B</td>
<td>45</td>
<td>33</td>
</tr>
</tbody>
</table>

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Table 7
Teacher rationales for grouping students by ability reported by individual participating Kindergarten (T1A-T7A) and Grade One (T1B-T6B) teachers during one-on-one interviews.

<table>
<thead>
<tr>
<th>Instructional Factors</th>
<th>Natural Age Division</th>
<th>Meeting Students’ Social &amp; Emotional Needs</th>
<th>Student Compatibility &amp; Classroom Management</th>
<th>Principal Encouragements, Board Mandates &amp; PD Lessons</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1A</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T2A</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T3A</td>
<td>✓ ✓ ✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T4A</td>
<td>✓ ✓ ✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T5A</td>
<td>✓ ✓ ✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T6A</td>
<td>✓ ✓ ✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T7A</td>
<td>✓ ✓ ✓ ✓ N/A (all SKs)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T1B</td>
<td>✓ N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T2B</td>
<td>✓ N/A</td>
<td>✓ ✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T3B</td>
<td>✓ N/A</td>
<td>✓ ✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T4B</td>
<td>✓ N/A</td>
<td>✓ ✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T5B</td>
<td>✓ N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T6B</td>
<td>✓ N/A</td>
<td>✓ ✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 8
The reported presence of additional adults (total number of days) by individual participating Kindergarten (T1A-T7A) and Grade One (T1B-T6B) teachers throughout the 2-week data collection period.

<table>
<thead>
<tr>
<th></th>
<th>Special Education Teachers</th>
<th>Student Teachers</th>
<th>Teacher Aides</th>
<th>Volunteers</th>
<th>Total Days with any Additional Adult(s) Present</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1A</td>
<td>N/A</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>T2A</td>
<td>N/A</td>
<td>8</td>
<td>7</td>
<td>N/A</td>
<td>10</td>
</tr>
<tr>
<td>T3A</td>
<td>N/A</td>
<td>N/A</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
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