Accommodating students on classroom and large-scale assessments: Teachers' perspectives and validity issues

Angela M. Leishman

Lakehead University

Thesis Supervisor: Dr. Christina van Barneveld, Lakehead University Committee Member: Dr. Tanya Kaefer, Lakehead University

#### Acknowledgements

With immense gratitude, thank you to my supervisor, Dr. Christina van Barneveld for her continuous support throughout this journey. I never could have completed this thesis without your generous commitment in time, energy, and wisdom. Thank you Drs. Tanya Kaefer, Alex Lawson, and Ruth Childs for your constructive thoughts and ideas that contributed to the betterment of this thesis. Thank you all for holding me to a high standard and offering your expertise and guidance.

A massive thank you goes to Colleen Kappell, Eileen Haven and the members of the Northwest PNC of MISA for their support and collaboration in this research endeavour. I am grateful to the Keewatin-Patricia DSB, Kenora Catholic DSB, Lakehead DSB, Northwest Catholic DSB, Rainy River DSB, Superior-Greenstone DSB, Superior North Catholic DSB, and Thunder Bay Catholic DSB for their support in the data collection for this project.

Finally, I am forever indebted to my friends and family for their never-ending support throughout this entire journey. I am especially grateful to my parents, Steve and Marcia, for their love and enthusiasm for anything I endeavour to do. Finally, to my partner, Malcolm, I am thankful for your constant support and tireless patience. Without all of you I could not have succeeded.

# **TABLE OF CONTENTS**

TABLE OF CONTENTS	
ABSTRACT	5
LIST OF TABLES	
LIST OF FIGURES	7
CHAPTER ONE: INTRODUCTION	
CHAPTER TWO: LITERATURE REVIEW	
Large-Scale Assessments	
Purpose of Large-Scale Assessments	
Psychometric Properties of Large-Scale Assessments	14
Accommodating Students on Large-Scale Assessments	
Accommodations Utilized by Students without Special Needs	
Psychometric Properties of Accommodations	
Selection of Accommodations	
Determining Effectiveness of Accommodations	
Consistency with Classroom Accommodations	
CHAPTER THREE: METHOD	24
Research Design	24
Instrument	
Data Collection	
Participants	
Data Analysis	
Ethical Considerations	
CHAPTER FOUR: RESULTS	
Response Rate	
Participants	
Teacher Responses	35
Research Question 1	
Research Question 2	
Research Question 3	
Further Comments	
CHAPTER 5: DISCUSSION	50
Research Question 1	
Consistency of Accommodations in the Literature	52
Research Question 2	53
Relationship with Accommodation Policy in the Literature	54
Research Question 3	
Teachers' Opinion on Validity within the Literature	57

Recommendations	60
Resolving the Conflict in Policy	60
Train Teachers	
Larger Study	64
Limitations	65
CONCLUSIONS	67
REFERENCES	68
APPENDIX A: Pilot Interview Questions	76
APPENDIX B: Revised Survey Instrument	77
APPENDIX C: Survey Instrument	83
APPENDIX D: Code Lists	89
APPENDIX E: Selected Examples of Comments by Teachers and Related	Inferences.96

#### ABSTRACT

The objective of this research was to examine teacher perspectives of accommodation practices in the classroom, on large-scale assessments, and their effect on the validity of large-scale assessment data in Ontario schools. The problem was that students without IEPs may benefit from accommodations in their classrooms but would not be eligible for accommodations on large-scale assessments, including those administered by the EQAO. This study answers three questions: (1) Would grade 3 and 6 teachers in Northern Ontario provide large-scale assessment accommodations consistent with the students' classroom accommodations? (2) What proportion of teachers would not follow the EOAO accommodation policy? (3) In the opinion of grades 3 and 6 teachers in Northern Ontario, what are the validity issues of large-scale assessments for students without IEPs who are receiving accommodations in the classroom? Data was collected in collaboration with the Northwest professional network centre (PNC) of the Managing Information for Student Achievement (MISA). Using a mixed-methods analysis I examined responses from 37 teachers in grades 3 or 6 throughout Northern Ontario. I found that, in general, students without IEPs would not receive accommodations on the EOAO that were consistent with their classroom accommodations. Further, more than half of all teachers would not follow the EQAO accommodation policies. Finally, inconsistency in accommodations between the classroom and the EQAO Primary and Junior Assessments is possibly a significant concern for validity of the interpretations of the EQAO assessments and should be further examined on a province-wide scale.

# LIST OF TABLES

Table 1 A Summary of the Data and Source for Each Research Question
Table 2 Teachers' Average Number of Years of Teaching Experience (Standard Deviation in parentheses)
Table 3 Number of Teachers by Highest Level of Education    33
Table 4 Number of Teachers by Special Education Additional Qualifications       34
Table 5 Number of Teachers who Received Training on Accommodations for the EQAO (n=30)35
Table 6 Number of Teachers Providing or Not Providing Accommodations to Students without IEPs
(Percentage in Parentheses)
Table 7 Number of Teachers' Accommodation Selection was Consistent between the Classroom
Assessment Context and the EQAO Assessment Context (Percentage in Parentheses)
Table 8 Number of Teachers who commented on a Given Theme in Response to a Resistant <sup>a</sup> Student
(n=32) (Percentage in Parentheses)
Table 9a Number Of Teachers Who Are and are Not Following The EQAO Accommodation Policy:
Summary (Percentage in Parentheses)
Table 9b Number of Teachers who Are and are Not Following the EQAO Accommodation Policy: Focus
on Categories of Behaviour (Percentage in Parentheses)
Table 10 Number of Teachers' who Commented on a Given Theme in Response to Validity of the EQAO       Page 10
Assessment for Students without IEPs (n=31)
Table 11 Number of Teachers' Additional Comments to Study

# LIST OF FIGURES

Figure 1 Teachers	'Estimate of the	Percentage of	f Non-IEPed	Students	Accommodated in the	Classroom

#### **CHAPTER ONE: INTRODUCTION**

The Education Quality and Accountability Office (EQAO) was created in 1996 in response to concerns from parents, teachers, and the general public about the quality of the Ontario education system (EQAO, 2013b). The EQAO was initially charged with the task to develop provincial standards, define performance levels for curriculum-related outcomes, and construct a system of assessment to measure student performance in relation to the developed standards (Brackenreed, 2006). The EQAO developed and administers four annual assessments: the Primary Division Assessment of Reading, Writing, and Mathematics (grade 3); the Junior Division Assessment of Reading, Writing, and Mathematics (grade 6); the Grade 9 Assessment of Mathematics; and the Ontario Secondary School Literacy Test (OSSLT). These assessments are criterion-referenced tests, which report how students are performing relative to set standards and performance outcomes developed by the EQAO (Brackenreed, 2006). The focus of this study was the Primary and Junior Division Assessments.

Administrators, policy makers, and teachers use the results of the Primary and Junior EQAO assessments to inform policy and guide future teaching. Administrators and policymakers use the results to measure the quality of education and maintain accountability in Ontario schools. This is exemplified in the EQAO's mandate to assure greater accountability and contribute to the enhancement of the quality of education in Ontario (EQAO, 2014b). As part of this mandate, the EQAO advises Ontario's Minister of Education on assessment policy and makes recommendations to the public and education community for further improvements to Ontario's public education system (EQAO, 2014b). Additionally, teachers use these tests to reflect upon their instructional practices and guide future teaching (Salvia & Yesseldyke, 2001).

8

In order for the EQAO assessments to inform future policies and teaching practices, the tests must be a valid measure of student ability. Validity, according to the *Standards for educational and psychological testing*, is defined as: "the degree to which evidence and theory support the interpretations of test scores entailed by proposed uses of tests" (American Educational Research Association, American Psychological Association, & National Council on Measurement in Education, 1999, p. 9). Further, validity is constantly evolving due to social changes and, therefore, it is important to remember that validation is a continuous process (Messick, 1995).

To ensure that all students can demonstrate their abilities on these assessments, the EQAO allows testing accommodations to students with special needs; that is students' whose needs are documented on Individual Education Plans (IEPs). Testing accommodations are defined as alterations to the test procedures that enable students to demonstrate their knowledge without the influence of a disabling condition (Feldman & Jee-Seon Elliot, 2011; Kettler, 2012). There have been a number of empirical studies examining the effects of accommodations on large-scale assessments, including perceptions of accommodations (Lang, et al., 2005; Roach, Elliott, & Berndt, 2007), performance with and without accommodations (Feldman, Jee-Son Elliot, 2011; Johnson, 2000; Lang, Elliott, Bolt, & Kratochwill, 2008; Tindal, Heath, Hollenbeck, Almond, & Harniss, 1998), and participation rates due to accommodations (Cox, Herner, Demczyk, & Nieberding, 2006). Only a few of these studies, however, have addressed the validity of using accommodations on these assessments (Lang, et al., 2005; 2008; Roach, et al., 2007). Moreover, the studies that do address issues of validity focus primarily on performance outcomes for students with identified special needs.

The EQAO has several policies regarding who can receive accommodations, under what circumstances, and what accommodations he or she may receive. Only students with Individual Education Plans (IEPs) that outline the accommodations needed by the student may receive accommodations on the EQAO assessments (EQAO, 2014a). The accommodations must be needed in, and used by, the student on *all* forms of assessment (i.e., classroom tests) in order for one or more accommodations to be used on the EQAO assessments (EQAO, 2014a). The accommodations must be developed for each student individually (EQAO, 2014a). Additionally, there are limited options for accommodations that the student may receive. The EQAO divides these options into three categories for the Primary and Junior Division Assessments: setting, presentation format, and response format. If an accommodation is not included among the listed options, the student may not use the accommodation on the EQAO assessments (EQAO, 2014a).

According to the EQAO policies on accommodations, regular classroom accommodations are vitally important to the validity of these assessments for students with IEPs (EQAO, 2014c); however, unlike the EQAO assessments, classroom accommodations are granted to all students, not just students with IEPs. The Ministry of Education mandates the "principle of supporting all students" and, in keeping with this principle, states that "policy and the implementation of policy must respond to the needs of a variety of students" (Ontario Ministry of Education, 2010; p. 7). Furthermore, according to *Education for All* (2005), a document released by the Ontario Ministry of Education, "every student is unique, and will therefore benefit from a flexible curriculum that provides him or her with the appropriate pathways for reaching learning goals, as well as fair and accurate assessment" (p. 10). In other words, Ministry guidelines state that accommodations are not just for students with IEPs, but can be granted for a diverse range of reasons at the discretion of the teacher. This is in conflict with the EQAO's policies on the granting of accommodations being only for students with IEPs. The potential result of this conflict in policies is that some students will receive accommodations regularly in the classroom to demonstrate their abilities, but will not be granted accommodations on the EQAO assessments. This could call into question the validity of the EQAO results for these students.

This study examined teacher perspectives of accommodation practices in the classroom and their effect on the validity of large-scale assessment data in Ontario schools. This study answered the following questions: (1) Would grade 3 and 6 teachers in Northern Ontario provide large-scale assessment accommodations consistent with the students' classroom accommodations? (2) What proportion of teachers would not follow the EQAO accommodation policy? (3) In the opinion of grades 3 and 6 teachers in Northern Ontario, what are the validity issues of large-scale assessments for students without IEPs who are receiving accommodations in the classroom?

#### **CHAPTER TWO: LITERATURE REVIEW**

The following literature review is separated into two sections. The first section outlines the history, purpose and psychometric properties of large-scale assessments, with emphasis on the EQAO Primary and Junior Division Assessments. The second section summarizes several important concerns regarding the use of accommodations on large-scale assessments, including: selection of accommodations, theoretical considerations regarding effectiveness, consistency with classroom accommodations, and psychometric properties.

#### Large-Scale Assessments

Over the last 45 years, the Standards Testing Movement in North America has been expanding and changing (Bartley & Lawson, 1999). In the beginning, large-scale assessments were intended to serve as an external evaluation on the quality of teaching and learning in order to improve overall educational quality. These initial assessments were viewed as an impartial evaluation of individual progress, free from classroom subjectivity (Bartley & Lawson). However, in the 1970s, concern that students did not know the so-called "basics," resulted in the publication of "neutral" district and school scores through emerging criterion-referenced testing programs (Bartley & Lawson, 1999).

Ontario established the EQAO in response to the 1994 Royal Commission on Learning when the Commission concluded that province-wide testing of all students was needed to provide "independent and public scrutiny of the education system" (cited in EQAO, 2013b, p. 5). This resulted in the testing of students at key stages of their education. The first tests developed and administered were the Primary Division Assessment of Reading, Writing and Mathematics (Primary Division Assessment) in 1996-1997, followed by the Junior Division Assessment of Reading, Writing and Mathematics (Junior Division Assessment) in 1998-1999. Since then, the EQAO has developed and administered two more assessments: the Grade 9 Assessment of Mathematics, and the Ontario Secondary School Literacy Test (Grade 10). The Primary and Junior Division Assessments were the focus of this thesis.

#### **Purpose of Large-Scale Assessments**

The primary purpose of large-scale assessments in schools is to ensure accountability to the public. Schools need to present evidence that the system is fulfilling educational goals and students are meeting a standard level of achievement set by the government. Both the Primary and Junior Division Assessments in Ontario measure the reading, writing, and mathematics skills that all students are expected to have learned by the end of grade 3 for the Primary Division and grade 6 for the Junior Division, as outlined by the Ontario Ministry of Education's Curriculum. These assessments provide schools with feedback on the effectiveness of teaching strategies and a means of tracking student achievement relative to curriculum expectations over time. Additionally, the large-scale assessments become the government's way of demonstrating that graduated students have met set standards, thus employers can be confident that these students have basic literacy and mathematical skills (Brackenreed, 2006).

To fulfill this purpose, the specific skills to be examined need to be identified. Typically, large-scale assessments are constructed using content standards, which identify knowledge and skills a student should know and be able to do at a specific grade level (Brackenreed, 2006). The knowledge and skills that form the content of these tests are drawn from several sources: curricula, educational programs, textbooks, and professional opinions. The EQAO developed, and continues to develop, the content of the Primary and Junior Division Assessments using this method. These standards became the foundation for accountability to the public. Since the

13

public will be using these assessments to guide future teaching and educational policies, it is important that the assessments are psychometrically sound.

## **Psychometric Properties of Large-Scale Assessments**

An important characteristic of large-scale assessments is the consistent practices in administering and scoring. For the Primary and Junior Division Assessments, standard administration procedures include teacher training, scripts for test administrators, and consistency of test procedures to create a controlled environment for test takers. These procedures are detailed in an annual *Administration Guide* published by the EQAO. The assumption is that if standard administration and scoring exist and are applied consistently, then the differences between test scores are an accurate representation of differences between students' knowledge and the skills measured by the test.

The EQAO claims their use of standard administration procedures as evidence of reliability; however, there is some evidence of teachers not following these procedures. For example, Childs and Umezawa (2009) found that many teachers predicted they would not follow test administration procedures when placed in ethical dilemmas, such as noticing a mistake when the student completed the answer sheet. Indeed, there is so much inconsistency within the literature on test administration procedures that the focus has shifted to ethical concerns. This shift has led Green, Johnson, Kim and Pope (2007) to conclude that a consensus has not been reached on which deviations from procedure, if any, are acceptable. The EQAO has not examined compliance with test administration procedures directly but they have examined other aspects of reliability.

The EQAO uses multiple scorers to test for interrater reliability during all of their assessments. In 1999, a study found that for the grade 3 (now the Primary Division) and grade 9

assessments, there was a high probability (between 70% and 80%) that the student was marked "correctly" by the marker when compared to an expert (Wolfe, Wiley & Traud, 1999). This study concluded that this was comparable to levels of reliability found in other large-scale assessments (Wolfe, Wiley & Traud, 1999). The EQAO continues to boast a high level of interrater reliability. According to the EQAO's most recently published technical report (2013a), the exact-plus-adjacent agreement for interrater reliability on the Primary and Junior Division Assessments were above 95% for all but four reading items, all but one writing item, and all but one mathematics item. Further, the reported classification accuracy for students achieving the provincial standard indicates that approximately 90% of students were correctly classified (EQAO, 2013a). This indicated an accepted level of reliability.

In addition to reliability, a test must be valid. Validity refers to whether a test is a valid measure of a student's skills and abilities, insofar as the conclusions drawn from the test are accurate (Kane, 2006; Messick, 1999). There are two types of validation arguments: interpretive arguments and validity arguments. The interpretive argument lays out the web of inferences and assumptions regarding the conclusions and decisions drawn from the observed performances (Kane, 2006). The interpretive argument is accepted as true if the assumptions supporting each inference are adequately supported (Kane, 2006). The validity argument evaluates the interpretation argument. According to Kane (2006), "to claim that a proposed interpretation or use is valid is to claim that the interpretive argument is coherent, that its inferences are reasonable, and that its assumptions are plausible" (p. 23). There are two types of evidence relevant to this study: construct validity and concurrent validity. Construct validity is that the test measures the skills and abilities that it is supposed to measure (Kane, 2006). Concurrent validity

refers to the consistency the test has against other measures of the same skills and abilities, such as classroom assessments, teacher ratings, and report cards (Kane, 2006).

In order to produce tests of high psychometric standards, the EQAO engages in quality assurance monitoring and database analysis to "ensure that the assessment produces valid and reliable data" (EQAO, 2014c, p. 1). Quality-assurance monitoring involves the EQAO representatives visiting a random sample of schools to observe the administration of the assessment. Database analysis involves statistical analysis of student-response data, including patterns that suggest collusion between students, and an examination of overall patterns of school results over time. Additionally, the EQAO engages in a variety of test statistics to assess precision scores, including Cronbach's alpha reliability coefficient, the standard error of measurement, test characteristic curves, test information functions, and differential item functioning statistics. Overall, satisfactory levels of precision have been obtained from these statistical tests (EQAO, 2013a).

#### Accommodating Students on Large-Scale Assessments

Students with special needs began being included in large-scale assessments due to pressure from lobby groups and parents who wanted to ensure equal opportunity for students with special needs, specifically when assessments served as a graduation requirement or were needed for admission to further education (Jayanthi, et al., 1996). Supporters of administering large-scale assessments to students with special needs advocated for the use of accommodations to "level the playing field" and thus allow these students to better demonstrate their abilities (Brackenreed, 2006). These accommodations were intended to alter the skills needed to *access* a test but not the skills *targeted* for measurement (Elliott, Braden, & White, 2001). By allowing

testing accommodations for students with special needs, administrators of assessments believe the test to be a more valid measure of student ability.

Under the *Ontarians with Disabilities Act* established in 2001, Ontario school boards are obligated to provide appropriate accommodations for students with special needs. In keeping with the Act, the EQAO allows accommodations on both the Primary and Junior Division Assessments. The EQAO defines accommodations as "changes in the way the assessment is administered or the way in which a student with special education needs responds to its components" (EQAO, 2014a, p. 1). Importantly, this definition emphasizes accommodations as being *only* for students with special education needs. The EQAO also states that "these [accommodations] do not alter the content of the assessment nor affect validity or reliability" (EQAO, 2014a, p. 1). The EQAO does not provide any evidence to support the claim that these accommodations do not affect the psychometric properties of the test.

Procedures for making accommodations for the EQAO Primary and Junior Division Assessments for students with special needs are outlined in the *Guide for Accommodations, Special Provisions, and Exemptions* (2014a). According to this manual, principals are responsible for ensuring that all accommodations are provided and that IEP documentation, which outlines necessary accommodations consistent with classroom practice, is provided to the EQAO in advance of the assessment. Importantly, an accommodation must be needed in and used by the student regularly on classroom assessments in order for it to be used during the Primary and Junior Division Assessments.

Permitted accommodations for the Primary and Junior Division Assessments are separated into three distinct sections: setting, presentation format, and response format (EQAO, 2014a). Setting (adjustments to environment) includes: individual or quiet setting, and prompts

17

for students with severe attention problems. Presentation format includes: sign language or oral interpreter, Braille versions, large-print booklets (grade 6 only), coloured-paper versions (regular or large-print, grade 6 only), audio CD with regular or large-print booklets (only for students with a visual impairment), assistive technology formats (Word, PDF, or RTF only). Lastly, response format includes: use of computer or word processor or assistive devices and technology, audio recording of student responses, and verbatim scribing of responses. Students may receive one or multiple accommodations based on their individual needs (EQAO, 2014a).

### Accommodations Utilized by Students without Special Needs

Due to recent emphasis on inclusive education, the theory of Universal Design for Learning (UDL) has been applied to the field of education. This theory states that an accommodation intended for a specific population will benefit others for whom the accommodation was not intended (Rose & Meyer, 2000). That is, an accommodation intended for an individual student helps others in the classroom; therefore, students without IEPs may be receiving accommodations regularly in their classroom but not on large-scale assessments.

The Ontario Ministry of Education supports the theory of UDL in the classroom. In *Education for All,* UDL is identified as a means to create inclusive learning and assessment:

A classroom based on the concept of UDL is specifically planned and developed to meet the special needs of a variety of students, including students who are disabled and those who come from a non-dominant culture. It is flexible, supportive, and adjustable, and increases full access to the curriculum for all students. (Ontario Ministry of Education, 2005, p. 10) The problem is that students without IEPs may benefit from accommodations in their classrooms but will not be eligible for accommodations on large-scale assessments, including those administered by EQAO.

## **Psychometric Properties of Accommodations**

Use of accommodations may significantly alter the standard test administration procedures that are vital for validity and reliability of the measure. Test accommodations that involve altering the presentation format, response format, or setting of the test, by their very nature, deviate from standard test administration procedures (Brackenreed, 2006). When nonstandard test procedures are used, whether intentionally or unintentionally, the test scores can be significantly altered (Childs & Umezawa, 2009). Indeed, studies by Geisinger (1994) and Elliot, McKevitt and Kettler (2002) both argue that if accommodations are used then the scoring, standards, and interpretations of the test need to be examined. Accommodations can either increase or decrease the validity based on the needs of the student. If an accommodation effectively allows the student *access* to the construct measured by the assessment then the validity is increased. However, accommodations that alter the testing procedures of a standardized test, may decrease validity. This tension between having a standardized assessment and accommodating students must be considered. Therefore, when accommodations are used it is important for the test users and administrators to consider the effects these may have on reliability and validity of the test scores, making the process of accommodation selection very important.

#### Selection of Accommodations

Accommodations for large-scale assessments must be selected based on a student's IEP and created for each student individually, but the research literature reveals a significantly different practice. Some IEP teams receive little guidance about choosing appropriate testing accommodations (Edgemon, Jablonski, & Lloyd, 2006), which results in students receiving the same accommodations as other students in a particular teacher's classroom (Lang, et al., 2005; Edgemon, et al., 2006) or no accommodations at all (Davies & Elliot, 2012). In some cases, teachers have been responsible for accommodation decisions without the aid of an IEP team (Jayanthi, et al., 1996), resulting in a limited view of the student and accommodation options. When familiar with a variety of accommodation options, teachers often report that many accommodations would be beneficial to their students, but that they are either not feasible in the classroom or too difficult to implement (Lang, et al., 2005). Based on these findings, DeLuca (2008) concludes that the wide variation in accommodation selection compromises the validity of assessments because it reduces comparability.

The ability of teachers to make consistent and effective accommodation selections has been explored by several studies, but they offer conflicting results. A qualitative, interview-based dissertation by Weston (1999) found that teachers did no better than chance at predicting which of their students would benefit from a verbatim reading accommodation. Yet, an empirical study that had students take both an accommodated and non-accommodated equivalent-version of an assessment found that teachers were able to accurately predict which students would benefit from a verbatim reading accommodation (Fuchs, et al., 2000). The conflicting results may be due to the differing methods employed by the researchers. Importantly, a problem with both of these studies is that they only offer a single type of accommodation that the teacher has to match to students they believe would benefit. This approach does not accurately simulate the selection process teachers undertake during large-scale assessments where they have to choose from a lengthy list of options. In order to better simulate the selection process, other studies have asked teachers to create an individualized accommodation package. Using this method, McKevitt and Elliott (2003) found that the teacher-recommended accommodations did not significantly benefit the students. However, a similar study by Feldman and Jee-Seon Elliott (2011) contradicted these findings by reporting that students with special needs were more successful when provided with teacher-selected individualized testing accommodations. This is problematic because if teachers, who are relied upon to provide accurate decisions regarding accommodation selections, are not able to accurately and consistently select the most beneficial accommodation for their students, then students may be unable to demonstrate their abilities on large-scale assessments without the influence of their disability.

## **Determining Effectiveness of Accommodations**

There are two competing theories to determine when an accommodation is effective for a particular student. Some researchers propose an *interaction hypothesis*, which asserts that accommodations should only improve test scores for examinees with special needs but have no effect on the test scores of examinees without special needs (Gregg & Nelson, 2012; Zuriff, 2000). Advocates of this position claim that improvement by examinees without special needs compromises the validity of the accommodated tests (Gregg & Nelson, 2012). There are problems with this position. First, it is possible that members of the non-accommodated group actually have special needs, even though they have not been formally identified. In this case the accommodations would prove beneficial with both groups of students rather than showing no effects. Second, this position is narrow in its definition of the effects accommodations should have on scores of non-special needs students. It has been criticised as too restricted (Fuchs & Fuchs, 1999; Gregg & Nelson, 2012).

The interaction hypothesis tends to be used with older studies (e.g., Johnson, 2000); more recent studies have demonstrated a shift towards the *differential boost hypothesis* (e.g., Feldman & Jee-Seon Elliott, 2011; Kettler, 2012; Lang, et al., 2008). This position states that accommodations should improve the performance of students with disabilities to a greater extent than those without disabilities (Fuchs & Fuchs, 1999; Gregg & Nelson, 2012; Kettler, 2012; Lang, et al., 2008). It provides more flexibility and accounts for issues in the non-accommodated population. Importantly, this position acknowledges that accommodations can benefit students without special needs.

It is important to note that not all studies side with a particular hypothesis and indeed many do not even state how they are measuring effectiveness (e.g., Cox, et al., 2006; Helwig & Tindal, 2003; Lang, et al., 2005; Tindal, et al., 1998), which makes comparison of results between studies problematic. More recent studies tend to identify a theoretical position, demonstrating a shift in the literature towards the differential boost hypothesis.

## **Consistency with Classroom Accommodations**

Accommodations on large-scale assessments need to be consistent with a student's classroom accommodations (Ketterlin-Geller, et al., 2007). In order to best demonstrate their abilities, students with special needs need to be familiar with and comfortable using the accommodations during the standardized test; otherwise, validity of the results may be compromised (Ketterlin-Geller, et al., 2007). The solution has been to require schools to provide documentation, usually an IEP where classroom accommodations are outlined, to warrant the accommodations for students with special needs during large-scale assessments (EQAO, 2014a).

Despite documentation being provided to support the use of accommodations in the classroom, there is evidence that some students may not be receiving these accommodations

regularly. For example, Gibson, Haeberli, Glover and Witter (2005) report that some students resist or refuse accommodations and that in some cases technological or environmental constraints can also prevent regular administration of accommodations to students. In the case of Ontario, is there evidence of inconsistent accommodation for students with an IEP because they do not wish accommodation during the EQAO assessments? Further, in the case of Ontario's EQAO elementary assessment, is there evidence of accommodation of students that is inconsistent with classroom practices?

#### **CHAPTER THREE: METHOD**

This study answered the following research questions: (1) Would grade 3 and 6 teachers in Northern Ontario provide large-scale assessment accommodations consistent with the students' classroom accommodations? (2) What proportion of teachers would not follow the EQAO accommodation policy? (3) In the opinion of grades 3 and 6 teachers in Northern Ontario, what are the validity issues of large-scale assessments for students without IEPs who are receiving accommodations in the classroom?

### **Research Design**

Mixed methods studies are defined as studies that use a combination of quantitative and qualitative approaches to research (Creswell & Plano Clark, 2011). Mixed-methods researchers believe that "the use of quantitative and qualitative approaches in combination provides a better understanding of research problems than either approach alone" (Creswell & Plano Clark, 2011, p. 5).

An embedded mixed methods design allows researchers to answer a research question through quantitative data within a predominately qualitative study (Creswell & Plano Clark, 2011). In this study the first research question, "are students receiving consistent testing accommodations?" was answered using this method. Qualitative data alone are not sufficient to understand this study's research questions. Teacher responses to open-ended questions can provide a deeper description of teachers' opinions and reasoning within a real-world context; this data alone, however, does not give us the consistency between classroom and large-scale assessment accommodations. Obtaining the frequencies of accommodation usage in conjunction with teachers' reasoning results in a more meaningful understanding of the data and the research topic. In a mixed-methods study the researcher needs to consider the timing of the data collection, the weighting of qualitative verses quantitative data, and how and when the data will be mixed (Creswell & Plano Clark, 2011). The weighting of the data refers to which method, qualitative or quantitative, are given more, less, or equal emphasis in the study. In an embedded design the primary method is given more emphasis, in this study the qualitative data was given priority. All qualitative data and quantitative demographic data were collected through a single survey; further quantitative data was extrapolated from the collected qualitative data. Analysis of the quantitative and qualitative data was done separately; the data was then mixed in the integration phase. This study design allowed the researcher to answer such questions as "how many" and "why" in the same study (Creswell & Plano Clark, 2011; Cooper, Porter, & Endacott, 2010).

There were three considerations I had to think about when constructing a research design to match the problem: the audience, the problem and my personal experience as the researcher (Creswell, 2009). The primary audience for this study included researchers in education, administrators at the EQAO and Ontario's Ministry of Education, administrators at the board and school level, and practicing educators. This thesis provided rich description of teacher opinions on the validity of providing accommodations to students without special needs in the classroom and on large-scale assessments. Through immersion in the data I became more experienced in interpreting, coding, and identifying emerging themes; a considerable part of this interpretation occured at the level of data analysis (Marshall & Rossman, 2006). My interpretation of teacher opinion of real-world practice was described and solutions posed using the differential boost hypothesis of accommodation effectiveness (Fuchs & Fuchs, 1999; Gregg & Nelson, 2012; Kettler, 2012; Lang, et al., 2008), and relevant research in educational measurement on validating large-scale assessments.

#### Instrument

The online survey was developed using the following process. First, based on current literature, pilot interviews were conducted with two school administrators to gain insight into validity issues with accommodations. See Appendix A for the pilot items. These interviews were used to refine the research questions for this thesis. Second, revised interview questions were developed based on the pilot interviews. This included the addition of several question prompts and the re-wording of a few questions for clarification. In the second version of this study the interview questions formed the qualitative portion of a convergent triangulation design with the quantitative questionnaire being a modified version of the Jayanthi, et al (1996) questionnaire. The quantitative instrument was modified in terms of content to better answer the research questions of the study but the style of the questions were consistent with the original version. See Appendix B for the revised instrument. This version of the study was presented to MISA members for feedback, where compliance (union issues) concerns arose due to the format of the quantitative questions. Based on this feedback the instrument was redesigned. We decided to use an online survey and hypothetical vignettes.

The online survey instrument used in this study was separated into three sections. The first section contained questions about demographics of the participants including teaching experience and experience with the EQAO assessments. The second section was a series of seven open-response vignettes on providing testing accommodations in both the classroom and the EQAO Primary or Junior Assessments. The third section asked teachers to provide their

opinions on the topic of validity and accommodations. See Appendix C for the survey instrument used in this study.

The format of the hypothetical vignettes was based on a study conducted by Childs and Umezawa (2009). Six of the vignettes were created based on the accommodation options provided by the EQAO in their *Guide for Accommodations, Special Provisions and Exemptions* (2014a). The final vignette was created based on the pre-study interviews, which identified a scenario not addressed by the EQAO's guidelines. Following each vignette the teacher is presented with two questions. The first, "What would you do in this classroom?" and the second, "What would you do during the EQAO's Primary or Junior Division Assessment?"

There were two advantages to presenting the vignettes as hypothetical situations and to ask "what would you do" instead of "what have you done." First, asking teachers what they have done previously would require them to have experienced the same dilemmas, which may not have occurred. Second, asking teachers to report what has happened within a school was a concern I encountered with the previous research design and survey due to the potential for a teacher to reveal improper procedures.

### **Data Collection**

Data was collected in the spring of 2014 using an online, anonymous survey that asked participants to respond to a series of 7 hypothetical vignettes where participants imagined that they were the teacher of a typical grade 3 or 6 class in an Ontario elementary school. Participants were also granted the option of completing the survey instrument over the phone; however no participants chose this method. This follows a similar survey design and data collection procedure conducted by Childs and Umezawa (2009). The survey also included two opinion questions regarding accommodations on large scale assessments. All data was collected using this single instrument. All participants were given a \$25 honourarium in the form of an Indigo Gift Card for their participation.

#### **Participants**

This study was conducted in collaboration with the Northwest professional network centre (PNC) of the Managing Information for Student Achievement (MISA). This PNC includes eight school boards throughout Northwestern Ontario: Northwest Catholic DSB, Rainy River DSB, Lakehead DSB, Thunder Bay Catholic DSB, Kenora Catholic DSB, Keewatin-Patricia DSB, Superior Greenstone DSB, and Superior North Catholic DSB.

Recruitment of participants involved two methods. First, through MISA representatives, participants were recruited from four participating school boards (Rainy River DSB, Lakehead DSB, Kenora Catholic DSB, and Superior Greenstone DSB). In order to be a participating school board, the study needed ethical approval from the school board; due to time restraints and interest this was not possible for all boards within the MISA network. The survey was sent out electronically to all teachers of grades 3 and 6 through the MISA representative at each participating school board, inviting them to participate in the study. This invitation also included teachers teaching split grades that included a grade 3 or 6. To ensure a comprehensive understanding of the research problem and relevant issues specific to Northwestern Ontario, newspaper advertisements were also placed in local papers throughout the Northwest.

#### Data Analysis

The first step of data analysis was to code the vignette responses. To begin, vignettes 1-6 were coded into whether or not teachers would provide an accommodation to students without an IEP in the respective settings, and whether or not the teachers were following policy in each setting (i.e., yes or no). Then the accommodations the teacher would provide in each setting for

28

vignettes 1-6 were coded. The accommodation list was initially compiled from the EQAO permissible accommodations. Three additional accommodation codes were added to the list to include accommodations not permissible on the EQAO assessments but often being utilized by teachers: setting other, presentation format other, response format other. Teachers sometimes responded with multiple accommodations, therefore some responses had multiple codes. Finally, vignette 7, entitled "resistant student," was coded into what a teacher would do in each setting. The codes were developed using an inductive approach based on trends in the data. This initial coding provided the frequency of each response and was the quantitative component of the study.

If a teacher reported that they would provide extra time this was not considered an accommodation because the EQAO does not have a time limit for the Primary and Junior Division assessments. Further, with the exception of the reading assessment, teachers are allowed to read verbatim the question to the student at the student's request. Therefore, reading of the question was also not coded as an accommodation in either the classroom or on the EQAO.

The second step of data analysis was to identify themes in the teachers' responses to the validity question. Initially, during the proposal stage of this study, a deductive approach was used to identify potential themes based on the research literature (e.g., Davies & Elliot, 2012; Edgemon, et al., 2006; Gibson, Glover & Witter, 2005; Lang, et al., 2005; Rose & Meyer, 2000) and the pre-study interviews. However, these preliminary themes were discarded following collection of the data because they consisted mainly of overarching ideas and the teachers' comments were more specific. New codes were developed using an inductive approach to identify additional themes or ideas emerging from the data.

For both steps in the data analysis, a coding manual was created consisting of a definition and example of each code. See Appendix D for the coding manual. All coding was completed manually and entered into SPSS for further quantitative analysis.

To be transparent in the way the qualitative data were analyzed, teacher comments that were rich in information were selected as examples to demonstrate how meanings were derived from the data and how the data were coded. These selected comments and inferences can be found in Appendix E.

Some survey questions were given multiple codes. For example, vignette 1 (survey questions 11 and 12) was coded in terms of whether an accommodation is provided for a student without an IEP, whether the accommodations matched between settings, whether the teacher was following policy, and why specifically the teacher was or was not following policy. The results of this coding were complied to answer the research questions. Table 1 shows the data used and the source of data (survey question) to answer each research question.

## ACCOMMODATING STUDENTS

Research Question	Data Used	Source of Data (Survey Questions)
Question 1: Would grade 3 and 6 teachers in Northern Ontario provide large-scale assessment accommodations consistent	Teacher opinion on the proportion of students what received accommodations in the classroom without an IEP.	25
with the students' classroom accommodations?	Number and percentage of teachers that do or do not provide accommodations to students without IEPs in the classroom and on the EQAO for each vignette.	11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22
	Number and percentage of teachers who reported consistency (match) in accommodations between the classroom and the EQAO for each vignette.	11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22
	Number and percentage of teachers who commented on a given theme in response to a resistant student (vignette 7).	23, 24
Research Question 2: What proportion of teachers would not follow the EQAO	Number and percentage of teachers who are and are not following the EQAO accommodation policy: summary	11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22
accommodation policy?	Number and percentage of teachers who are and are not following the EQAO accommodation policy: focus on categories of behaviour	11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22
Question 3: In the opinion of grades 3 and 6 teachers in Northern Ontario, what are the validity issues of large-scale assessments for students without IEPs who are receiving accommodations in the classroom?	Number of teachers who commented on a given theme in response to validity of the EQAO assessment for students without IEPs.	26

## Table 1 A Summary of the Data and Source for Each Research Question

# Ethical Considerations

The guidelines set out by each school board and Lakehead University's Research Ethics Board were followed.

### **Response Rate**

There were 44 respondents to the online survey and 0 respondents to the phone administration option. Of the 44 respondents 4 surveys were left completely blank, 2 completed only the demographic information, and 1 responded with "nothing" to every question in the survey. These 7 respondents were removed from the data because they did not provide any information that addressed the research questions. Therefore, the number of participants included in the data analysis was n=37.

The response rate was approximately 15%. The response rate was estimated based on the EQAO data on number of 3 and 6 *classrooms* for each participating school board at the time of the survey. Note that this number was an estimate of how many *teachers* there were at the relevant grade levels.

It was difficult to determine the exact response rate because it is unknown how many teachers were invited to the study due to the participant recruitment strategy. For example, recruiting potential participants using newspaper advertisements could have reached teachers from school boards outside of the MISA group (e.g., the French language board). Also, it was possible that teachers from grades other that Grades 3 and 6 may have chosen to participate in the survey. For example, two teachers responded to the survey that did not teach either invited grades. This demonstrated that other teachers received an invitation to participate despite not being the target audience. These two respondents were included in the data analysis because they reported having experience with the EQAO assessments.

## **Participants**

Of the 37 participants, n=23 were teaching grade 3 and n=12 were teaching grade 6 at the time of the survey. Additionally, n=2 stated that they were not teaching either of these grade levels; these teachers were included in the study because both have experience with the EQAO assessments as well as four years and twenty-eight years of teaching experience, respectively.

Table 2 outlines the average teaching experience of the 31 female and 6 male participants. The table is organized by the grade level teachers were teaching at the time of the study.

Table 2 *Teachers' Average Number of Years of Teaching Experience* (Standard Deviation in parentheses)

Grade Level	Years of Teaching Experience			
Currently Teaching	In Current Grade Level In Total			
Grade 3 (n=23)	3 (3)	12 (8)		
Grade 6 (n=12)	5 (4)	12 (7)		
Other Grade (n=2)	9 (10)	16 (17)		

On average, teachers had over a decade of experience teaching, but less experience at the level they are currently teaching. The teachers in grade 3 had relatively less experience in their current grade than other teachers.

Table 3 outlines the highest level of education teachers reported. Table 2 is organized by the grade level teachers were teaching at the time of the study.

Table 3 Number of Teachers by Highest Level of Education

Grade Level	Highest Level of Education				
Currently Teaching	3-Year Bachelor	4-Year Bachelor	Honours Bachelor	Masters	
Grade 3 (n=23)	7	8	5	3	
Grade 6 (n=12)	5	3	2	2	
Other Grade (n=2)	1	0	1	0	

For grade 3 teachers there is a variety of highest education levels, with the majority of teachers having either a 3- or 4-Year Bachelor Degree (non-Honours). Grade 6 teachers reported that the most frequent level of education is a 3-Year Bachelor Degree. Few teachers reported having beyond a bachelor level of education in either grade.

Table 4 outlines the number of teachers by their special education additional qualifications. The columns under the heading "Highest Level of Additional Qualifications" show the number of teachers with each level of the Special Education Additional Qualification.

Table 4 Number of Teachers by Special Education Additional Qualifications

Grade Level	Н	Highest Level of Additional Qualifications				
Currently Teaching	Special	Special Special Education Special Education No Add				
	Education Part I	Part II	Specialist	Qualifications		
Grade 3 (n=23)	4	3	4	12		
Grade 4 (n=12)	5	0	1	6		
Other Grade (n=2)	0	0	1	1		

Most frequently, teachers reported not having taken any special education additional qualification courses regardless of grade level. If teachers have taken this additional qualification, approximately half progressed beyond Part I.

Table 5 outlines the number of teachers who received training on accommodations for EQAO assessments. The table is organized by where teachers received the EQAO training. Please note that only the 30 out of 37 teachers who reported receiving training are included in this table. The remaining 7 teachers reported that they have not received any training for the EQAO and therefore were not included in this table.

#### ACCOMMODATING STUDENTS

	Did this include Training on Accommodations?		
Origin of Training	Yes <sup>a</sup>	No	
Board Level	18	7	
School Level	6	0	
EQAO	2	0	
Ministry of Education	2	0	

Table 5 Number	of Teachers	who Received	General Training	on the EOAO (	n=30
				$z_{2} = z_{2} = z_{1}$	/

<sup>*a*</sup> Some teachers' reported receiving training for the EQAO from multiple sources (board, school, etc.), therefore the data sums to more than n=30.

Most teachers reported being trained on accommodations for EQAO assessments. Teachers reported four different origins of the training, with the majority having received the training from their school board.

#### **Teacher Responses**

Teachers were asked to use their professional judgement to respond to the vignettes. Many teachers responded with "I" in their response suggesting that their responses were based on what they would do in each situation.

#### **Research Question 1**

The first research question of this study was: Would grade 3 and 6 teachers in Northern Ontario provide large-scale assessment accommodations consistent with the students' classroom accommodations? The data that supports an answer to this research question are summarized in Tables 6 - 8 and Figure 1.

Table 6 outlines the number and percent of teachers that would provide accommodations to non-IEPed students in the two assessment contexts.

		Accommodations in Classroom				
-	Provided Accommodations		Not Provided			
Vignette			Accom	modations	Total	
	on I	EQAO	on EQAO			
-	Provided	Not Provided	Provided	Not Provided		
Individual Setting	18 (49)	14 (38)	2 (5)	3 (8)	37 (100)	
Inattentive	17 (49)	12 (34)	3 (9)	3 (9)	35 (100)	
Vision Problem	9 (27)	21 (62)	-	4 (12)	34 (100)	
Hearing Problem	6 (22)	27 (82)	-	-	33 (100)	
Prefers Typing	4 12)	24 (73)	1 (3)	4 (12)	33 (100)	
Prefers Oral	1 (3)	30 (88)	-	3 (9)	34 (100)	

Table 6 Number of Teachers Providing or Not Providing Accommodations to Students without IEPs (Percentage in Parentheses)

Overall, this table suggests that teachers would have provided accommodations for students without IEPs in their class. Some teachers also would have accommodated non-IEPed students on the EQAO assessments. Most frequently, teachers would have provided the non-IEPed accommodations to students who performed better in an individual setting or were inattentive. Students with vision or hearing problems and students who performed better typing or orally than writing typically would not have received accommodations on EQAO assessments without an IEP, even though they received accommodations in the classroom.

Table 7 shows the consistency of accommodation selection by teachers between contexts. If the accommodation provided was the same in both the classroom then it was considered a "match."

Vignette	Accommodation Mate	Total	
	Yes	No	
Individual Setting	17 (46)	20 (54)	37 (100)
Inattentive	15 (43)	20 (57)	35 (100)
Vision Problem	11 32)	23 (68)	34 (100)
Hearing Problem	6 18)	27 (82)	33 (100)
Prefers Typing	15 (46)	18 (55)	33 (100)
Prefers Oral	10 (29)	24 (71)	34 (100)

 Table 7 Number of Teachers' Accommodation Selection was Consistent between the Classroom

 Assessment Context and the EQAO Assessment Context (Percentage in Parentheses)

<sup>a</sup> If a teacher selected the identical accommodation for both class and EQAO it was a "match." Note: if teachers selected multiple accommodations for either context and any of the accommodations were repeated in each context, it was considered a "match."

In general, this table suggests that students without IEPs would not receive accommodations on the EQAO that matched what they received in the classroom. Over 50% of students without an IEP would not receive the same accommodation on the EQAO as what they regularly received in the classroom. Non-IEPed students with a hearing problem or students who performed best orally were most likely to receive inconsistent accommodations.

Some teachers would provide an accommodation in the classroom but none on the EQAO. Such as a teacher who responded to a student with a vision problem, in the classroom:

I would make sure that they sat closer to the board. I would let them have a buddy so they could copy notes if they could not see properly. I would go over the assignment with them to ensure they understood.

In the classroom this teacher would provide the student with a variety of accommodations (some not permissible on the EQAO); however, on the EQAO the student would receive "Nothing." Sometimes teachers would provide no accommodations on the EQAO because the teacher is trying to follow the EQAO policy. For example, for a student who prefers oral, a teacher stated that in the classroom:

I have students who I scribe for all the time. I also have students who record their responses into a Digital Voice Recorder, either for me to listen to, or for them to transcribe later. I have also used the iPad app, Educreations, for kids to demonstrate their thinking during math problems.

However, on the EQAO the teacher stated, "Unless they have an IEP, you can do nothing." This demonstrates that the teacher recognizes that the EQAO has stricter requirements for accommodations.

In the case of non-IEPed students with a hearing problem or students who performed best orally, often the teacher would be inconsistent between the settings due to the mode of testing. For example, one teacher stated that in the classroom he/she would "Let him use oral answers for some but not all assessments" but for the EQAO stated "He does not have any oral options with EQAO." Sometimes teachers would not provide accommodations on the EQAO because the teacher has determined that the accommodation would not be necessary due to the written nature of the assessment.

Additionally, some teachers revealed that the EQAO determined the accommodations available to the student in the classroom. For example, one teacher stated that in the classroom: "Knowing it is an EQAO year, I would have to practice writing responses. This could be done in all classes (science, health) to support EQAO experience." For this teacher, preparation for the EQAO was considered a reason to restrict accommodations in certain situations. This teacher also clarified his/her reasoning in the response given for the EQAO section of the vignette: "After a year of work on written responses that child would be given the test and required to write as all students are. The ability to write is a skill all children need whether it is a testing year or not." In this case the accommodations were consistent between the settings; however, the EQAO determined the accommodations in the classroom.

Teachers were asked their opinion on "approximately what proportion of students in a typical grade 3 or 6 classroom receives accommodation in the classroom without an Individual Education Plan (IEP?)" The question was left open-ended and teachers responded in several ways: fraction, percentage, and a range were most common. For example, one participant responded that "one-third to half of the students" in the classroom would be provided with an accommodation without an IEP. All responses were converted into a percentage for comparison purposes. In the cases where a range was reported, the middle of the range was used. Figure 1 shows the percentage of teachers who reported within a particular range of percentage of students being accommodated in the classroom without IEPs.

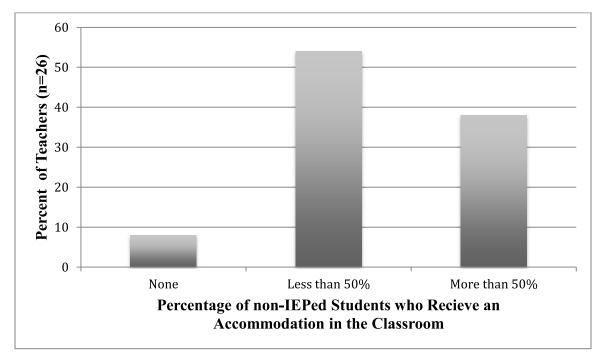


Figure 1 Teachers' Estimate of the Percentage of Non-IEPed Students Accommodated in the Classroom

The average proportion of students teachers believed would receive accommodations without an IEP reported was 39% (SD=38). With the exception of 2 teachers, all reported that some students would receive accommodations without IEPs. There was a large spread in teachers' responses, with the majority of teachers believing that less than 50% of students receive accommodations without IEPs, but a large number of teachers believed it is higher.

The majority of participants responded with short responses; however, some teachers provided more insight into their reasoning. For example, one teacher responded that: "50% of my students receive accomodation. [*sic*] (emotional, supportive, seating etc.) I have a small class of 8 therefore this is easy to facilitate. In a large classroom, I imagine that students don't get that [*sic*] small things (accomodations) [*sic*] they need to achieve their potential." This suggests that some teachers believed that accommodation provisions depend on the resources within the classroom.

Table 8 outlines what teachers would do when dealing with a student who refused to utilize his/her IEPed accommodation. It is important to remember that vignette 7 (in Table 8) was unique. Vignettes 1-6 are about situations non-IEPed students. Vignette 7 is unique in that the student in this vignette <u>has an IEP</u> but refuses the accommodation. Vignette 7 was added to the study based on the pilot interviews.

Table 8 Number of Teachers who commented on a Given Theme in Response to a Resistant<sup>a</sup> Vignette (n=32) (Percentage in Parentheses)

Teacher Response	Assessmen	Assessment Context		
	Classroom	EQAO		
Teacher would use (or encourage the student to use) the accommodation for which the student is IEPed.	28 (88)	19 (59)		
Teacher would use an accommodation that was not on the IEP (different than that for which the student was IEPed).	7 (22)	5 (16)		
Teacher would allow other students to be accommodated with the accommodation originally only intended for the IEPed student.	10 (31)	0		
Teacher would make the IEPed accommodation optional to the student.	5 (16)	14 (44)		
Teacher would do nothing if student refuses to use the IEPed accommodation.	0	2 (6)		

<sup>a</sup> A resistant student is a student who refuses to use the accommodation for which he or she is IEPed.

With a resistant student, teachers would most often have the student use the

accommodation for which he/she was IEPed both in the classroom and during the EQAO. This suggests consistency for IEPed students. However, teachers were more likely to make the accommodation optional to the student during the EQAO than in the classroom. Many teachers also would allow other students in the classroom to be accommodated with the accommodation but no teachers reported they would allow these students to use the accommodation on EQAO. This suggests students without IEPs may be inconsistently accommodated.

### **Research Question 2**

The second research question was: What proportion of teachers would not follow the EQAO accommodation policy? The data that supports an answer to this research question is presented in tables 9a and 9b.

Table 9a is a summary of the number of teachers that would follow the EQAO accommodation policy. Table 9b gives more in depth information on *how* teachers are either following or not following the EQAO accommodations policy by examining categories of teacher behaviour. Importantly, the summary totals in Table 9a will not be the same as the totals in Table 9b. This is because teachers provided multiple responses for both the classroom and the EQAO; in order to remain conservative the summary provided in Table 9a recorded all instances where a teacher gave a response that would follow the EQAO policy as "yes" even if the teacher *also* provided a response that is not following policy. In Table 9b, however, *all responses* provided for the EQAO were recorded; therefore some teachers were recorded multiple times.

Table 9a Number Of Teachers Who Are and are Not Following The EQAO Accommodation Policy: Summary (Percentage in Parentheses)

Vignette	Follows EQAO Policy		Total
_	Yes	No	
Individual Setting	17 (46)	20 (54)	37 (100)
Inattentive	15 (43)	20 (57)	35 (100)
Vision Problem	25 (76)	8 (24)	33 (100)
Hearing Problem	27 (82)	6 (18)	33 (100)
Prefers Typing	28 (85)	5 (15)	33 (100)
Prefers Oral	33 (97)	1 (3)	34 (100)

Table 9a shows that more than half of all teachers would not follow the EQAO policy if the accommodation was for a student who performs better in an individual setting or was inattentive. Teachers would mostly follow both policies for students with vision or hearing problems and for students who performed better typing or orally than writing. This suggests that a determining factor of whether a teacher would follow policy is the needs of the student.

Table 9b outlines categories of behaviour related to *how* the accommodations teachers would provide during the EQAO are consistent or inconsistent with the EQAO policy. In order

for an accommodation to follow the EOAO policy, the teacher must select an accommodation that the student used regularly in the classroom and was permissible according to the EQAO guidelines. The column titled "Match," shows the number of teachers (and percentage) who would be consistent between the contexts. In contrast, "Mismatch," shows the number of teachers who would provide an accommodation on the EOAO different from what was regularly provided in the classroom. Further, "Non-Permissible," shows the number of teachers who would provide an accommodation that is not included in the EQAO guidelines for accommodations. It should be noted that if a teacher reported that they would provide an accommodation that was both a mismatch and non-permissible it was included in the "Non-Permissible" column only. Additionally, "Match but Non-Permissible," shows the number of teachers who would provide an accommodation on the EQAO that was the same accommodation in the classroom *but* the accommodation was not included in the list of permissible accommodations for the EQAO assessments. Teachers may have selected multiple accommodations for each vignette, which is why the row totals do not equal the total number of teachers in the final column.

Table 9b Number of Teachers who Are and are Not Following the EQAO Accommodation Policy: Focus on Categories of Behaviour (Percentage in Parentheses)

	Catego	ries of Behaviou	r on the EQAO <sup>a</sup>			
Consiste	Consistent with Policy		Inconsistent with Policy			Total
Match	Develop IEP	Mismatch	Non-	Match <i>but</i> Non-		
			Permissible	Permissible		
7 (18)	10 (27)	4 (11)	13 (35)	8 (21)	10 (27)	37 (100)
9 (26)	10 (29)	16 (46)	4 (11)	8 (23)	10 (29)	35 (100)
4 (12)	9 (27)	17 (52)	11(33)	6 (18)	22 (67)	33 (100)
0	4 (12)	1 (3)	3 (9)	6 (18)	30 (91)	33 (100)
14 (42)	19 (58)	9 (27)	2 (6)	0	15 (45)	33 (100)
6 (18)	6 (18)	5 (15)	1 (3)	1 (3)	28 (82)	34 (100)
	Match 7 (18) 9 (26) 4 (12) 0 14 (42)	Consistent with Policy           Match         Develop IEP           7 (18)         10 (27)           9 (26)         10 (29)           4 (12)         9 (27)           0         4 (12)           14 (42)         19 (58)	Consistent with Policy         Mismatch           Match         Develop IEP         Mismatch           7 (18)         10 (27)         4 (11)           9 (26)         10 (29)         16 (46)           4 (12)         9 (27)         17 (52)           0         4 (12)         1 (3)           14 (42)         19 (58)         9 (27)	MatchDevelop IEPMismatchNon- Permissibleb7 (18)10 (27)4 (11)13 (35)9 (26)10 (29)16 (46)4 (11)4 (12)9 (27)17 (52)11 (33)04 (12)1 (3)3 (9)14 (42)19 (58)9 (27)2 (6)	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $

<sup>a</sup> Teachers may have selected multiple accommodations for each vignette, which is why each row will not equal the total.

<sup>b</sup> In cases where the accommodation was *both* a mismatch and non-permissible it was included in the non-permissible column only.

In all vignettes, at least one teacher would choose to provide a non-permissible accommodation. Sometimes this was due to confusion regarding the EQAO policy. For example, for a student who preferred typing, one teacher would allow the student to "Type their answers on computer, print and attach into booklet. This isn't technological assistance...or???" on the EQAO. Further, all but one vignette had at least one teacher that would try to be consistent with the classroom accommodation but would still provide a non-permissible accommodation. This suggests that some teachers are uncertain of the EQAO accommodation policy.

In all vignettes over 25% of teachers might provide no accommodations on the EQAO. For students that prefer oral or have a hearing problem teachers reported that over 80% would not provide any accommodations on the EQAO. For both of these vignettes, teachers often responded that the accommodations are not necessary due to the nature of the assessment. On the Prefers Oral, vignette some teachers stated that the EQAO assessment is written and therefore the student must write. For example, one teacher responded: "He does not have any oral options with EQAO." Another stated: "Write is the only option." Additionally, a teacher responded to Hearing Problem by stating "There is nothing I can do with the structure of the testing" and another teacher agreed by saying he/she would do "Nothing. Sound not required." This suggests that whether a teacher would follow policy was, in part, dependent on the needs of the student.

For students that prefer typing, teachers would provide accommodations that were more consistent with policy than with any other vignette. Forty-two percent of teachers would provide accommodations on the EQAO consistent with what the student would have in the classroom. Fifty-eight percent of teachers thought that when a student prefers typing they would develop an IEP for this student; which was nearly double in frequency when compared to every other vignette. This suggests that resources, such as computers, may be a factor that determined whether teachers followed the EQAO policy.

# **Research Question 3**

The third research question of this study was: Do teachers believe that the EQAO assessments are valid for students without IEPs who receive accommodations in the classroom? The data that supports an answer to this research question is presented in Table 10.

Table 10 outlines the opinion of teachers on the validity of the EQAO assessment results for non-IEPed students regularly receiving accommodations in the classroom.

Teacher Opinion			
Teacher believes that EQAO assessment results are not valid for students.	25		
Not valid due to students not receiving consistent accommodations.		8	
Not valid due to the test being too long, too hard, and/or too stressful.		8	
Not valid due to the mode of testing in the classroom being different.		5	
Not valid due to another reason not stated above.		4	
Teacher's comment is misinformed or confusing. It is not related to validity.	4		
Teacher's comment presents conflicting information regarding validity.		3	
Teacher's comment is a general statement not related to validity.		1	
Teacher believes that EQAO assessment results are valid for students.			
Valid for students that are confident, and motivated.		1	
Valid for students that are properly accommodated or are IEPed.		1	

Table 10 Number of Teachers' who Commented on a Given Theme in Response to Validity of the EQAO Assessment for Students without IEPs (n=31)

This table shows the majority of teachers believed the EQAO assessments were not a valid measure for students who regularly received accommodations in the classroom without IEPs. Most frequently, teachers identified that students receiving inconsistent accommodations made the test an invalid measure of student ability. For example, one teacher stated:

I would say that there would be no validity to a large-scale assessment of a student who receives accommodations in the regular classroom but isn't provided these same accommodations on the test.

Teachers also frequently identified that the test is too long, too stressful, or too hard for these students; such as:

I believe large-scale assessments such as EQAO are not a true measure of a student's actual abilities. The test is long, drawn out and unrealistic for real-life all of which cause stress and anxiety for students who are both accommodated and not.

Some teachers also expressed concern that the mode of testing differed between contexts specifically that the EQAO assessments do not reflect how teachers assess in the classroom.

The test does not simulate the classroom environment where the student learns and completes assessments so the large-scale assessment environment, which is very different, cannot be an accurate reflection of a child's ability. All children learn differently and demonstrate their learning in a way that works for them. These large-scale assessments do not address this. Finally, a few teachers reported that the EQAO was not valid because of other reasons not stated above. The frequency of students receiving inconsistent accommodations being the reason for teachers believing the test was not a valid measure suggests the issue examined in this thesis to be of concern.

# **Further Comments**

Teachers were given the opportunity at the conclusion of the study to express any additional comments, concerns, or questions regarding the study. Table 11 reports the teachers' responses to this question.

Table 11 Number of Teachers' Additional Comments to Study	
Teachers' Comment	n
Teacher's comment offers a solution to the problem.	5
Teacher's comment is related to validity.	3
Teacher explicitly states he/she has no additional comment.	3
Teacher's comment is related to something else, not stated above.	3

Most teachers had no further comments. Of the teachers who did comment, the most frequent response was a solution to the problem of accommodating students consistently. Solutions primarily focused on changing the EQAO assessments. Four of the five teachers who provided a solution suggested that some or the entire EQAO assessment program are removed from Ontario schools. For example, one teacher stated:

I think the EQAO testing is a very expensive method of testing our students. Finland, a leader in education worldwide has abandoned testing years ago and still is thought to have a world class system. The money would be better spent on support staff in our classrooms to help students who are in need of individualized attention.

Another teacher suggested a more concrete solution to this study's particular research topic:

I strongly believe that IEPs should not have to be written for accommodations. We accommodate students all the time, in dozens of different ways. That's just good teaching, and shouldn't have to be written up in a formal IEP.

This teacher believes that IEPs are an unnecessary hindrance to students on the EQAO assessments and that a variety of accommodations to all students should be allowed. The frequency of teacher offered solutions suggests that teachers have considered the problem and are a source for potential solutions.

Three teachers commented on validity issues. Two of the three teachers commented on the mode of testing, such as:

I feel that in the classroom we are supposed to support students individuality and ensure that we differentiate our instruction and assessments. The EQAO assessments are only allowing a small percentage of kids to truly show what they are capable of.

This teacher believes that the EQAO assessment is not representative of the types of assessment that occurs in the classroom. The other teacher that commented on validity expressed concern over the length and difficulty of the EQAO assessment. This teacher stated:

The test is unfair to the regular child who is suddenly required to work for extended periods without any support (including pointing out missed questions). It is even more unfair for the child who does have an IEP and is on a modified program and suddenly is required to do grade level work. The EQAO assessment was viewed as either too long or too difficult for all students, but particularly students regularly requiring extra support.

Finally, other teachers stated they had no additional comments or their comment was not related to the issue, such as a "good job."

### **CHAPTER 5: DISCUSSION**

## **Research Question 1**

The first research question of this study was: Would grade 3 and 6 teachers in Northern Ontario provide large-scale assessment accommodations consistent with the students' classroom accommodations? In general, teachers believed students without IEPs do not receive large-scale assessment accommodations consistent with their classroom accommodations.

The results of the quantitative and qualitative data analysis suggest that there were two sources of inconsistency between large-scale assessment accommodations and classroom accommodations for students without an IEP: the teachers and the EQAO accommodation policies. For teachers, there were three categories of inconsistency:

 The teacher would provide accommodations in one setting but not the other. For example, for the majority of the vignettes over 50% of students without IEPs would receive accommodations in the classroom but not on the EQAO assessment (see Table 6). There were also a few instances where teachers reported that students without an IEP would receive an accommodation on the EQAO but not in the classroom.

- The teacher would provide different accommodations in each setting. For example, for all vignettes, over 50% of students without IEPs would not receive the same accommodation on the EQAO as they regularly received in the classroom (see Table 7).
- 3. Teacher knowledge of what constitutes an accommodation was inaccurate. For example, many teachers would provide non-permissible accommodations on the EQAO assessments. Providing accommodations that are not allowed on the EQAO assessment creates inconsistencies between the settings.

There was one vignette that I used to explore students *with* IEPs who were resistant to their IEPed accommodations (i.e., they have an IEP but refuse to use the accommodation). For a resistant student, teachers most often would have the student use the accommodation for which he/she was IEPed, both in the classroom and during the EQAO. It is interesting to note that over 30% of teachers reported that *other* students in the classroom who did not have an IEP would be accommodated using the same accommodation. For example, if one student required a computer, then all students would be provided with a computer. The primary reason teachers provided accommodations to other students in a resistant student's classroom were to diminish perceived social inequality and stigma. The resistant student vignette shows that some teachers consider not only academic issues but also social issues between students when selecting an accommodation. For this vignette, no teachers, however, reported that they

would allow the non-IEPed students to use the accommodation on the EQAO assessment. This is another example of teachers providing inconsistent accommodations between the classroom and large-scale assessments.

# **Consistency of Accommodations in the Literature**

Work done by Lang, et al. (2005) and Gibson, Haeberli, Glover and Witter (2005) offer a potential explanation for my results. Lang, et al. (2005) found that teachers reported many accommodations would be beneficial to their students, but that the accommodations were either not feasible in the classroom or too difficult to implement. Gibson, Haeberli, Glover and Witter (2005) further supported this claim when they found that technological or environmental constraints could prevent regular administration of accommodations to students. It is therefore possible that teachers would, if given proper support, provide a different accommodation to the student in their classrooms. The inconsistency in accommodations between contexts thus may stem from teachers trying to provide the student with the best possible support on the EQAO assessment that resources will allow, despite this accommodation possibly being different in the classroom context due to different resources.

There is no research conducted that directly examines resistant students. However, Gibson, et al. (2005) propose in their methods that teachers do nothing for resistant students when they receive an accommodation. This is inconsistent with my findings that teachers most frequently have the student use the accommodation regardless or provide all students with the accommodation to reduce social inequities. Further research conducted by Elliot, Kratochwill, and McKevitt (2001) suggests a potential explanation for my results for resistant students. This study found that 75% of students who received teacher recommended accommodations instead of those on their IEPs, performed better on large-scale assessments. In my study, teachers sometimes reported that they would change the IEPed accommodations in the classroom even if it meant creating an inconsistency with their accommodations on the EQAO. Hence teachers who reported they would change the accommodation are supported in the literature for allowing students to better demonstrate their abilities.

# **Research Question 2**

The second research question was: What proportion of teachers would not follow the EQAO accommodation policy? The proportion of teachers that reported not following the EQAO accommodation policy ranged from 2.9% to 57.1%. Whether a teacher was following the EQAO policy was dependent on the vignette and needs of the individual student (see Table 9a).

There are two policies teachers need to be following: the classroom accommodation policy and the EQAO accommodation policy. In the classroom, the Ministry of Education mandates the "principle of supporting all students" (Ontario Ministry of Education, 2010). Ministry guidelines state that accommodations are not just for students with IEPs, but can be granted for a diverse range of reasons at the discretion of the teacher. On the EQAO, policy states accommodations may only be granted for students with IEPs. The accommodations must be developed for each student individually and be utilized by the student regularly in the classroom (EQAO, 2014a). The EQAO also restricts which accommodations the student may receive; if an accommodation is not included among the listed options, the student may not use the accommodation on the EQAO assessments (EQAO, 2014a). There were primarily three categories of how teachers were not following the EQAO policy.

- 1. Teachers would provide a non-IEPed student with an accommodation.
- 2. The teacher would develop an IEP prior to the EQAO but then would provide an inconsistent accommodation (a different accommodation than in the classroom).
- 3. The teacher would develop an IEP prior to the EQAO but then would provide a non-permissible accommodation on the EQAO.

In terms of teachers providing non-IEPed students with accommodations, it is difficult to interpret fully without further evidence as to whether this is an active resistance to policy or lack of knowledge on the policy. Teachers' decisions to either provide an inconsistent or non-permissible accommodation may be due to an ethical dilemma. If teachers were already providing a non-permissible EQAO accommodation in the classroom then teachers only have two choices after developing an IEP. Teachers can either change the accommodation to one that is permissible, which then creates an inconsistency, or teachers can be consistent but provide a non-permissible accommodation. Regardless of which option teachers choose they will not be following policy.

# Relationship with Accommodation Policy in the Literature

The research literature suggests three reasons why teachers would not follow the policies: (1) what constitutes an accommodation is unclear (Harrison, et al., 2013; Wolf, et al. 2009); (2) teachers were unfamiliar with the accommodation policies (Pitoniak & Royner, 2001; Wolf, et al., 2012); and (3) particular accommodations required additional personnel support or resources (Wolf, et al., 2009; 2012).

Work done by Harrison et al. (2013) offers one potential explanation for my results that teachers would provide an inconsistent or non-permissible accommodation. Harrison et al (2013) explain that some "accommodations" such as providing choice. adding an element of student interest, or adding structure to a task (i.e., scaffolding) do not meet the definition of an accommodation yet they are commonly being recommended within the classroom under such a guise. This is likely due to the Ministry guidelines surrounding what constitutes a classroom accommodation being unclear. Thus, teachers are providing what they perceive to be accommodations in the classroom but do not fit the more stringent definition of accommodations set out by testing agencies such as the EOAO. Further, Wolf, et al. (2009) state that the definition of accommodations are sometimes unclear due to lack of standard implementation procedures. Therefore, teachers are required to define accommodations and interpret how to implement them individually, resulting in a variety of definitions and interpretations that vary from teacher to teacher. The result is that teachers are providing accommodations in the classroom that do not match the EQAO permissible accommodations and therefore teachers must either be inconsistent in their accommodations in order to follow the EOAO policy or they must provide a non-permissible accommodation on the EOAO.

Pitoniak and Royner (2001) and Wolf, et al. (2012) offers a second explanation for my findings. Both studies reported that US state policies changed frequently, in fact so frequently that it was difficult for teachers to keep up with the policy changes. In some cases the accommodation policies changed so frequently that an accommodation may be restricted one year and opened to everyone the next (Lazarus, et al., 2007). Additionally, accommodation policies differed substantially between states and even within school boards (Wolf, et al. 2009). When Thurlow, et al. (2005) reviewed a variety of US states' accommodation policies the study revealed large variability in what accommodations were allowed and who should be allowed to receive them. For example, some states required that students have an IEP (similar to Ontario) to access accommodation on large-scale assessments, but other states allowed all students access to all or some accommodations regardless of special education status.

In Ontario, there have been some changes, although minimal, to the EQAO Primary and Junior Division Assessments. For example, for years verbatim scribing of a response was only permissible for the reading and mathematics sections (EQAO, 2007); however, as of 2008-2009 the writing section may also be scribed (EQAO, 2009). In general, alterations to the accommodation policy in Ontario have increased accommodations permissible to students. However, there is little evidence of dramatic changes, such as those reported by researchers in the United States (e.g., Lazarus, et al., 2007; Wolf, et al. 2009).

Wolf, et al. (2009; 2012) also offers another potential explanation for my findings; they found that teachers were less likely to follow policy when accommodations required additional personnel support or resources. In particular, resource constraints influenced teacher decisions regarding which accommodations to provide (Wolf, et al., 2009). In fact, Wolf, et al. (2009) concluded that the main reason teachers reported not being able to keep up with changing accommodation policies was because of limited resources or logistical difficulties. In a follow-up study, Wolf, et al. (2012) came to the same conclusion; further supporting that lack of personnel support and resources may contribute to teachers not following policy.

## **Research Question 3**

The third research question of this study was: Do teachers believe that the EQAO assessments are valid for students without IEPs who receive accommodations in the classroom? No, the majority of teachers (80%) believe that the EQAO assessments were not a valid measure for students who regularly received accommodations in the classroom without IEPs. Approximately 33% of teachers stated that they believed the test was invalid due to inconsistent accommodations between the classroom and the EQAO. Another 33% of the teachers believed that the EQAO assessment was not valid due to the test being too long, too hard, and/or too stressful. An additional 20% of teachers identified the mode of testing in the classroom being different from the EQAO assessment as the reason they believed the results were not valid.

The issue of inconsistent accommodations was important, but when teachers were given the opportunity to comment on validity, of equal importance was that the test was too long, too hard, and/or too stressful. However, since the length, difficulty, and stressfulness of the test was not the topic of this thesis it will not be discussed.

### Teachers' Opinion on Validity within the Literature

Teachers beliefs about inconsistent accommodations have not been directly discussed within the literature. However, a study by Lin (2013) reported that during the 2005-2006 EQAO Junior Assessment N=1,636 (1.1%) students for math, N=1686 (1.2%) students for reading, and N=1,406 (1.0%) student for writing received an accommodation without an IEP. Additionally, approximately 44% of these students received the accommodation without Special Permission, meaning that these students did not have documented evidence of a need of an accommodation and that there was a strong

#### ACCOMMODATING STUDENTS

likelihood they would be unfamiliar with the accommodation (Lin, 2013). Therefore there is some evidence that students are receiving inconsistent accommodations but the numbers reported by Lin are minimal compared with the teachers' beliefs reported in this thesis. Further, the study by Lin (2013) did not discuss validity issues associated with the inconsistency but did conclude that there is a lack of consistency between test administration and policy. This conclusion links the issues of this thesis together; suggesting that there may be a link between accommodation decisions and lack of policy adherence.

Inconsistency in accommodations can result in construct-irrelevant variance, which is a major component of the validity argument. Construct-irrelevant variance is defined as the introduction of extraneous variables that affect test outcomes unrelated to the construct being measured (Downing, 2002; Haladyna & Downing, 2004; Moss, Girard, & Haniford, 2006). In this case the error-inducing variable is accommodation inconsistency and the construct being measured is knowledge of reading, writing, and mathematics. The construct-irrelevant variance could result in an underestimation of student ability and therefore an error in the interpretation of results.

Claiming that the interpretations of the EQAO assessments are valid is to claim that "the interpretive argument is coherent, that its inferences are reasonable, and that its assumptions are plausible" (Kane, 2006). According to Kane (2013) validation is a twostep process: (1) the claims inherent in a particular interpretation or use of test scores must be made explicit and (2) these claims must be evaluated based on empirical evidence or logical arguments. With construct-irrelevant variance being introduced due to inconsistent accommodations, test scores may be deflated, potentially calling into question the validity of interpretations based on the scores.

This study also examined whether teachers believed large-scale assessment data was valid for students without IEPs who regularly received accommodations in the classroom. There is inconsistency in the literature regarding the value of teachers' opinions on validity. One study has acknowledged that teachers' beliefs about validity and how they develop and administer their classroom assessments are inconsistent (Black, et al., 2010). This study warned that teachers' opinions regarding validity should not be accepted without teacher training on validity. However, Kyriakides (2004) argued that teachers offer a unique perspective on the validity of large-scale assessments, which he calls "inferential validity." He argues that teachers' opinions on the validity should be considered when determining the validity of large-scale assessments because they are the end-users of the tests and thus provide valuable insight into the validity of the interpretations.

This study provided some evidence that teachers believed the EQAO score interpretations may be invalid for students without IEPs in the classroom that are receiving inconsistent accommodations on the EQAO. This inconsistency may be due to non-permissible accommodations or a change to the accommodation due to the development of an IEP for the EQAO.

It is impossible to know exactly how many students without IEPs in Ontario did not receive accommodations on the EQAO despite regularly receiving accommodations in the classroom. Teachers in this study reported a wide range in the percentage of students in this situation with a mean of 39.3% and median of 37.5%. Using the more 59

conservative median, in 2013-2014 approximately 39,686 grade 3 and 37,709 grade 6 students completed their EQAO assessments without accommodations despite regularly receiving accommodations in the classroom. On a provincial scale, this issue is a possible concern for validity. Based on the teachers' reported number of students not receiving an accommodation they regularly employed, interpretations of the EQAO assessments may be invalid and therefore the decisions and interventions may be unsuitable and/or unhelpful to Ontario classrooms.

#### Recommendations

Based on the findings of this study, I recommend doing the following: (1) resolve the conflict in policy; (2) train teachers on accommodations; and (3) validate the findings of this study with a larger, systematic study across the province. Consistency in accommodations is what is best for the students to allow them to best demonstrate their abilities on large-scale assessments. Valid interpretations of the EQAO scores will help drive curriculum in a helpful direction.

### **Resolving the Conflict in Policy**

I suggest a committee be struck to consider the following four options in more detail:

- 1. Make the classroom accommodation policy consistent with the EQAO policy;
- 2. Make the EQAO accommodation policy consistent with the classroom policy;
- 3. Change both the EQAO and classroom policies to be more consistent.
- Change the EQAO assessments to be more inline with Universal Design for Learning (UDL).

The first option, to resolve the conflict in policy, is to make the classroom accommodation policy consistent with the EQAO policy. This would mean using only the EQAO permissible accommodations in the classroom to ensure that students would not receive accommodations inconsistent with their accommodations on the EQAO. This option is the least desirable because it may limit the ability of teachers to choose the best accommodations for their students.

The second option, to resolve the conflict in policy, is to make the EQAO accommodation policy consistent with classroom policy. Since classroom policy defines accommodations more openly, the restrictions for the EQAO accommodations could be changed. This may involve removing the requirement that students have IEPs in place to receive accommodations and to allow all students' access to any accommodations available to them in the classroom. This would increase the comparability between the EQAO assessments with classroom measures of assessment. Removing the IEP requirement and allowing all students access to a variety of accommodations is consistent with the *differential boost hypothesis*. This hypothesis states that accommodations should improve the performance of students with disabilities to a greater extent than those without disabilities (Fuchs & Fuchs, 1999; Gregg & Nelson, 2012; Kettler, 2012; Lang, et al., 2008). In other words, students without a need for accommodations would not significantly benefit from the "levelling of the playing field." Thus, providing all students with accommodations would greatly increase students' capability to perform to the best of their abilities. Further there is precedent for such a policy; Thurlow, et al. (2005) reported that some US states have implemented an open accommodation policy, where all students have access to accommodations.

The third option, to resolve the conflict in policy, is to change both the EQAO and classroom accommodation policies to be more consistent. Altering both policies would

#### ACCOMMODATING STUDENTS

bring both inline with each other. There could be a longer list of restricted accommodations both in the classroom and on the EQAO. This would ensure consistency between the classroom and the EQAO and with restrictions in the classroom; this would ensure that teachers are more aware of what constitutes and accommodation. However, the requirement for IEPs would no longer be needed in either setting to also ensure that all students who would benefit could be accommodated.

The fourth option, to resolve the conflict in policy, is to change the assessments themselves using Universal Design for Learning (UDL). Interestingly, this recommendation is the most common in the literature. It is often recommended that governments consider UDL in order to create high-quality assessments and therefore decrease the need for accommodations (Lazarus, et al. 2009). This suggestion to change large-scale assessments to be more inline with UDL principles is similar to the Ministry of Education's classroom policy. Thus, by bringing UDL into large-scale assessments the EQAO would be more inline with the current Ontario classroom accommodation policy.

Both UDL and removing accommodation access requirements involve bringing the EQAO assessments more inline with classroom policies. Based on evidence (e.g., Lazarus, et al, 2009; Thurlow, et al, 2005), changing the EQAO assessment policy rather than the classroom policy may be the better option to ensure students are given the best opportunities to demonstrate their abilities on the EQAO assessments. However, the best option is to make the EQAO assessments more inline with UDL principles because this would provide the

62

best access to test constructs for all students therefore making the assessment interpretations more valid.

# **Train Teachers**

My results suggest that teachers may lack knowledge on accommodation policy. This includes what constitutes an accommodation and which accommodations are permissible on the EQAO assessments. Teachers need to be trained on accommodations to reduce the possibility of lack of teacher knowledge contributing to inconsistency. Specifically, teachers need to be aware of what constitutes an accommodation and the related policies both in the classroom and on the EQAO. Professional development will aid in teachers selecting consistent accommodations and therefore allow students to best demonstrate their abilities.

Professional Development is the best way to increase teacher knowledge on accommodation policy. Teachers of grades 3 and 6 should receive workshops and presentations from the EQAO at the beginning of every school year on accommodation practices. This will ensure they are always kept up to date on any policy changes. Special Education teachers or an equivalent specialist in the field within the school should also be involved with classroom accommodation decisions. Regular meetings should take place throughout the year between teacher and the specialist to consider accommodation options to benefit all students. This will avoid Wolf, et al.'s (2009) concerns that teachers' lack of understanding was due to teachers having to define accommodations and interpret how to implement them individually, resulting in a variety of definitions and interpretations that vary from teacher to teacher. Having experts involved with accommodation decisions would also help ensure teachers knew how to access additional resources and gain additional personnel support in the classroom. My study suggests that resource constrains influence teacher accommodation decisions. An expert working with the teacher would increase the likelihood that teachers are able to follow the policies. Additionally, if IEPs are still required for the EQAO, these experts could help facilitate that process. Training on how to gain additional resources and personnel within the classroom will help maintain consistency in accommodations between the classroom and the EQAO.

## Larger Study

Finally, it is recommended that a systematic, province-wide study be conducted on the topic of accommodation consistency between the classroom and the EQAO. A larger, systematic study will validate the results and give further direction to future policy changes.

A more widely distributed questionnaire is needed. This could be done either through the EQAO teacher questionnaire or through a teacher federation magazine to ensure all teachers have access to the questionnaire and opportunity to comment. A questionnaire could also be sent to students to give more depth to the research. This could also be done through the EQAO assessment questionnaire.

This study used vignettes created from the EQAO policy. The list of vignettes could be expanded in a larger study to further examine the issues. Further, questions that consider teacher support and resources should be asked to determine the likelihood that students would actually receive the teacher recommended accommodations. Finally, the EQAO could pilot test some of the recommendations of this study and assess the extent to which inconsistent accommodations affect the results. For example, all students in a specific school board could be granted access to accommodations regardless of IEP status. Their results could then be compared to the rest of the province to determine if there were systematic differences in test scores.

# Limitations

There are five limitations of this study that need to be taken into consideration:

- 1. A small sample size;
- 2. Participant self-selection;
- 3. Hypothetical questioning does not measure what actually happens;
- 4. Limited scenarios.

The results of this study need to be considered in relationship with these limitations.

Small sample size limits the generalizability of this study. In particular, this study's sample was from one part of Ontario with a very specific student and teacher population. Generalization of this study's results should be done with caution.

Participants volunteered to complete this study. It is possible that participants selfselected to participate in a study on a topic they already had strong opinions. Additionally, this study offered a \$25 honorarium for participation. Participants may have responded due to this incentive. A wider study would help gain more insights into the topic.

The hypothetical questioning provided a means of preventing ethical problems for participants; however, it limited the study by not measuring what actually happens in the classroom. It is important to interpret the results of this study with consideration that it

# ACCOMMODATING STUDENTS

only measured what *hypothetically* happened in a *typical* classroom. How teachers imagine a typical classroom may differ from what actually occurs.

This study included a series of 7 vignettes. This was a limited view into a few researcher-selected situations that do not reflect the prevalence in actual classrooms. The scenarios were not an exhaustive list and provided a limited view of the research questions. Further scenarios, with teacher input, need to be developed to gain a more comprehensive view of the issues of this thesis.

# CONCLUSIONS

This study examined teacher perspectives of accommodation practices in the classroom and their effect on the validity of large-scale assessment data in Ontario schools. In general, students without IEPs were not receiving accommodations on the EQAO that were consistent with their classroom accommodations. Further, more than half of all teachers would not follow the EQAO accommodation policies. The majority of teachers believed that the EQAO assessments were not a valid measure for students who regularly received accommodations in the classroom without IEPs. Inconsistency in accommodations between the classroom and the EQAO Primary and Junior Assessments is possibly a significant concern for validity of the interpretations of the EQAO assessments and should be further examined on a province-wide scale.

#### REFERENCES

- American Educational Research Association, American Psychological Association, &
   National Council on Measurement in Education. (1999). *Standards for education and psychological testing*. Washington, DC: American Educational Research Association.
- Bartley, A. & Lawson, A. (1999). Varieties of assessment: Issues of validity and reliability (EQAO Research Series No. 2). Toronto: Queen's Printer for Ontario.
- Black, P., Harrison, C., Hodgen, J., Marsall, B., & Serret, N. (2010). Validity in teachers' summative assessments. Assessment in Education: Principles, Policy & Practice, 17(2), 215-232.
- Brackenreed, D. G. (2006). English Teachers' Perceptions of Standards Tests, the Efficacy of Testing Accommodations and Appropriateness for Students with Special Needs (Doctoral dissertation, University of Regina). Available from ProQuest Dissertations and Theses database. (NO. NR20280).
- Childs, R. A. & Umezawa, L. (2009). When the Teacher is the Test Proctor. *Canadian Journal of Education*, 32(3), 618-651.
- Cooper, S., Porter, J., & Endacott, R. (2010). Mixed methods research: A design for emergency care research? *Emergency Medicine Journal*. doi: 10.1136/emj.2010.096321.
- Cox, M. L., Herner, J. G., Demczyk, M. J., & Nieberding, J. J. (2006). Provision of testing accommodations for students with disabilities on statewide assessments: Statistical links with participation and discipline rates. *Remedial and Special Education*, 27(6), 346-354.

- Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (3<sup>rd</sup> ed.)*. Thousand Oaks, CA: SAGE Publications, Inc.
- Creswell, J. W. & Plano Clark, V. L. (2011). *Designing and Conducting Mixed Methods Research (2nd ed.)*. Thousand Oaks, CA: SAGE Publications, Inc.
- Davies, M. & Elliott, S. (2012). Inclusive assessment and accountability: Policy to evidence-based practices. *International Journal of Disability, Development and Education, 59*(1), 1-6. doi: 10.1080/1034912X.2012.654932
- DeLuca, C. (2008). Issues in including students with disabilities in large-scale assessment programs. *Exceptionality Education Canada*, *18*(2), 38-50.
- Downing, S. M. (2002). Threats to the validity of locally developed multiple-choice tests in medical education: construct irrelevant variance and construct underrepresentation. *Advances Health Science Education*, 7(3), 235-241.
- Edgemon, E. A., Jablonski, B. R., & Lloyd, J. W. (2006). Large-scale assessments: A teacher's guide to making decisions about accommodations. *Teaching Exceptional Children, 38*(3), 6-11.
- Education Quality and Accountability Office (2007). Assessments for Reading, Writing, Mathematics, Primary Division (Grades 1-3) and Junior Division (Grades 4-6): Guide for Accommodations, Special Provisions and Exemptions.
- Education Quality and Accountability Office (2009). Assessments for Reading, Writing, Mathematics, Primary Division (Grades 1-3) and Junior Division (Grades 4-6): Guide for Accommodations, Special Provisions and Exemptions.

Education Quality and Accountability Office (2013a). EQAO's Technical Report for the

2012-2013 Assessments. Retrieved from:

http://www.eqao.com/pdf\_e/14/technical-report-2012-2013.pdf

- Education Quality and Accountability Office. (2013b). *Ontario's Provincial Assessment Program: Its History and Influence*. Queen's Printer for Ontario.
- Education Quality and Accountability Office. (2014a). Assessments for Reading, Writing, Mathematics, Primary Division (Grades 1-3) and Junior Division (Grades 4-6): Guide for Accommodations, Special Provisions and Exemptions. Retrieved from www.eqao.com/pdf\_e/14/PJe\_AccomGuide2014.pdf
- Education Quality and Accountability Office. (2014b). *About the EQAO*. Retrieved from http://www.eqao.com/AboutEQAO/Mandate.aspx?Lang=E
- Education Quality and Accountability Office. (2014c). *Policies and Procedures*. Retrieved from www.eqao.com/pdf\_e/13/PolicyProcedures\_PJe\_2013.pdf
- Elliott, S. N., Braden, J. P., & White, J. L. (2001). Assessing one and all: Educational accountability for students with disabilities. Alexandria, VA: Council for Exceptional Children.
- Elliot, S. N., Kratochwill, T. R., & McKevitt, B. C. (2001). Experimental analysis of the effects of testing accommodations on the scores of students with and without disabilities. *Journal of School Psychology*, *39*(1), 3-24.
- Elliot, S., McKevitt, R., & Kettler, R. (2002). Testing accommodation research and decision-making: The case of 'good' scores being highly valued but difficult to achieve for all students. *Measurement and Evaluation in Counseling and Development*, 35(3), 153-167.

Feldman, E. K. & Jee-Seon Elliott, S. N. (2011). The effects of accommodations on

adolescents' self-efficacy and test performance. *The Journal of Special Education, 45*(2), 77-88.

- Fuchs, L. S. & Fuchs, D. (1999). Fair and unfair testing accommodations. School Administrator, 56, 24-29.
- Fuchs, L. S., Fuchs, D., Eaton, S. B., Hamlett, C., & Karns, K. (2000). Supplementing teacher judgements about test accommodations with objective data sources. *School Psychology Review*, 29(1), 65-85.
- Geisinger, K. (1994). Psychometric issues in testing students with disabilities. *Applied Measurement in Education*, 7, 121-140.
- Gibson, D., Haeberli, F. B., Glover, T. A., & Witter E. A. (2005). Use of Recommended and Provided Testing Accommodations. Assessment for Effective Intervention 31(1), 19-36.
- Gregg, N. & Nelson, J. M. (2012). Meta-analysis on the effectiveness of extra time as a test accommodations with learning disabilities: More questions than answers. *Journal of Learning Disabilities*, 45(2), 128-138. doi:

10.1177/0022219409355484

- Haladyna, T. M. & Downing, S. M. (2004). Construct-Irrelevant Variance in High-Stakes Testing. *Educational Measurement: Issues and Practice*, 23(1), 17-27. doi: 10.1111/j.1745-3992.2004.tb00149.x
- Harrison, J. R., Bunford, N., Evans, S. W., & Owens, J. S. (2013). Educational accommodations for students with behavioural challenges: A systematic review of the literature. *Review of Educational Research*, *83*(4), 551-597. doi: 10.3102/0034654313497517

- Helwig, R. & Tindal, G. (2003). An experimental analysis of accommodation decisions on large-scale mathematics tests. *Exceptional Children*, 69(2), 211-225.
- Jayanthi, M., Epstein, M. H., Polloway, E. A., & Bursuck, W. D. (1996). A national survey of general education teachers' perceptions of testing adaptations. *The Journal of Special Education*, 30(1), 99-115.
- Johnson, E. S. (2000). The effects of accommodations on performance assessments. *Remedial and Special Education*, *21*(5), 261-267.
- Kane, M. (2006). Validation. In Robert L. Brennan (Ed.), *Educational Measurement* (pp. 17-64). Westport, CT: Praeger Publishers.
- Kane, M. (2013). Validating the Interpretations and Uses of Test Scores. Journal of Educational Measurement, 50(1), 1-73. doi: 10.111/jedm.12000
- Kettler, R. J. (2012). Testing accommodations: Theory and research to inform practice. *International Journal of Disability, Development and Education, 59*(1), 53-66. doi: 10.1080/1034912X.2012.654952
- Ketterlin-Geller, L. R., Alonzo, J., Braun-Monegan, J., & Tindal, G. (2007).
   Recommendations for Accommodation: Implications of (In)consistency.
   *Remedial and Special Education, 28*(4), 194-206.
- Kyriakides, L. (2004). Investigating validity from teachers' perspectives through their engagement in large-scale assessment: the Emergent Literacy Baseline Assessment project. *Assessment in Education*, *11*(2), 143-165. doi: 10.1080/096959404200029466
- Lang, S. C., Elliott, S. N., Bolt, D. M., & Kratochwill, T. R. (2008). Testing

accommodations: Effects on students' performances and reactions to testing. *School Psychology Quarterly, 14*(3), 107-124.

- Lang, S. C., Kumke, P. J., Ray, C. E., Cowell, E. L., Elliott, S. N., Kratochwill, T. R., & Bolt, D. M. (2005). Consequences of using testing accommodations: Student, teacher, and parent perceptions of the reactions to testing accommodations.
  Assessment for Effective Intervention, 31(1), 49-62.
- Lazarus, S. S., Thurlow, M. L., Lail, K. E., & Christensen, L. (2007). A longitudinal Analysis of State Accommodations Policies: Twelve Years of Change, 1993-2005. *The Journal of Special Education*, 43(2), 67-80. doi: 10.1177/0022466907313524
- Lin, P. Y. (2013). Assessment Policy and Practices: Test Accommodations for Students Without Disabilities? e*Journal of Educational Policy*, Spring. Retrieved from: http://nau.edu/COE/eJournal/ Forms/spring2013/Lin/
- Marshall, C. & Rossman, G. B. (2006). *Desiging Qualitative Research*. Thousand Oaks, CA: SAGE Publications Inc.
- McKevitt, B. C., & Elliott, S. N. (2003). Effects and perceived consequences of using read-aloud and teacher-recommended testing accommodations on a reading achievement test. *School Psychology Review*, 32, 583-600.
- Messick, S. (1995). Validity of psychological assessment: Validation of inferences from persons' responses and performances as scientific inquiry into score meaning. *American Psychologist*, 50, 741-749.
- Messick, S. (1999). Validity. In Robert L. Linn (Ed.), *Educational Measurement* (pp. 13-103). Phoenix, AZ: The Oyrx Press.

- Moss, P. A., Girard, B. J., & Haniford, L. C. (2006). Validity in Educational Assessment. *Review of Research in Education*, 30(Special Issue), 109-162.
- Ontario Ministry of Education. (2005). The Report of the Expert Panel on Literacy and Numeracy Instruction for Students with Special Education Needs, Kindergarten to Grade 6. Retrieved from

http://www.edu.gov.on.ca/eng/document/reports/speced/panel/

- Ontario Ministry of Education. (2010). *Growing Success: Assessment, Evaluation and Reporting in Ontario's Schools, First Edition Covering Grades 1 to 12.* Retrieved from http://www.edu.gov.on.ca/eng/policyfunding/success.html
- Pitoniak, M. J., & Royner, J. M. (2001). Testing Accommodations for Examinees with Disabilities: A Review of Psychometric, Legal, and Social Policy Issues. *Review* of Educational Research, 71(1), 53-104. doi: 10.3102/00346543071001053
- Roach, A. T., Elliott, S. N., & Berndt, S. (2007). Teacher perceptions and consequential validity of an alternate assessment for students with significant cognitive disabilities. *Journal of Disability Policy Studies*, 18(3), 168-175.
- Rose, D. & Meyer, A. (2000). Universal Design for Learning. Journal of Special Education Technology, 15(1), 67-70.
- Salvia, J. & Yesseldyke, J. (2001). Assessment (8th Ed). Boston: Houghton Mifflin.
- Thurlow, M. L., Lazarus, S. S., Thompson, S. J., & Morse, A. (2005). State policies on assessment participation and accommodations for students with disabilities. *Journal of Special Education*, 38, 232-240.
- Tindal, G., Heath, B., Hollenbeck, K., Almond, P., & Harniss, M. (1998).

Accommodating students with disabilities on large-scale tests: An experimental study. *Exceptional Children, 64*, 439-450.

- Weston, T. J. (1999). Investigating the validity of the accommodation of oral presentation in testing (Doctoral dissertation). *Dissertation Abstracts International, 60*, A1083.
- Thurlow, K. W., Kao, J. C., Rivera, N. M., & Chang, S. M. (2012). Accommodation Practices for English Language Learners in States' Mathematics Assessments. *Teachers College Record*, 114(3), 1-26.
- Wolf, M. K., Griffin, N., Kao, J. C., Rivera, S. (2009). Connecting Policy to Practice: Accommodations in States' Large-Scale Math Assessments for English Language Learners. National Center for Research on Evaluation, Standards, and Student Testing. Retrieved from: https://www.cse.ucla.edu/
- Wolfe, R., Wiley, D. & Traub, R. (1999). Psychometric Perspectives for EQAO: Generalizability Theory and Applications (EQAO Research Series No. 3). Toronto: Queen's Printer for Ontario.
- Zuriff, G. E. (2000). Extra examination time for students with learning disabilities: An examination of the maximum potential thesis. *Applied Measurement in Education, 13*, 99-117.

#### **APPENDIX A: Pilot Interview Questions**

#### **Interview Questions:**

1) Tell me a bit about yourself?

Section 1: Accommodations for students in the Classroom

2) Tell me about your experience with accommodations in your classroom for students with IEPs?

Prompt: How are you defining accommodations?

**Prompt:** What types of accommodations do you usually provide?

3) In accordance with Ministry Guidelines, such as Growing Success, some teachers report providing accommodations to students without IEPs. Do you ever provide accommodations to students without IEPs in your classroom? Tell me more...

**Prompt:** Under what circumstances?

Section 2: Accommodation for Large-Scale Assessments

4) Tell me about your experience with accommodations on EQAO assessments?

Prompt: Do students without IEPs ever receive accommodations on EQAO assessments?

5) A test is considered a valid measure when the test score is an accurate reflection of a student's abilities and therefore the conclusions drawn from the test score are accurate. In your opinion, do you believe the accommodations on EQAO assessments are a valid measure of a student's ability? (Why or why not?)

*Prompt:* How about for those students who normally receive accommodations on classroom assessments but not on EQAO assessments?

6) How do you think accommodations affects student motivation during the EQAO assessments?

*Prompt:* How about for those students who normally receive accommodations on classroom assessments but not on EQAO assessments?

7) In your opinion, what are the main issues related to accommodations for EQAO testing?

*Prompt:* Have you ever heard of a situation where students might receive accommodations in the classroom but not on the test? Tell me more...

*Prompt:* How do the unique needs of First Nations students relate to the topic of accommodations and large-scale assessments? (Same? Different?)

*Prompt:* How do students enrolled in the French immersion program relate to the topic of accommodations and large-scale assessments? (Do they have unique needs?)

#### **APPENDIX B: Revised Survey Instrument**

Please select:

Male Female

In addition to your teaching certification, what is the highest level of education you have received? Please select:

- □ Technical Diploma
- □ 3-Year Bachelor
- □ 4-Year Bachelor
- $\Box$  Honours Degree
- $\Box$  Master's Degree
- □ Doctorate Degree

What grade level are you currently teaching? \_\_\_\_\_

How many years of experience do you have teaching at this grade level?

How many years of experience do you have teaching in total?

Did you receive training or preparation for EQAO assessments? YES/NO

From whom: \_\_\_\_\_

Did this training or preparation include information on accommodations? YES/NO

Do you have students with IEPs in your class this year? YES/NO

Testing accommodations are defined for the purpose of this study as **alterations to the test procedures** that enable students to demonstrate their knowledge. This does not include changing the content of the test for the student. Please rate how often you have provided the following accommodations to students **with** IEPs on your **classroom assessments** this school year? If an accommodation is not listed please fill it in at the bottom.

Accommodation	Not at All	Sometimes	Often	Always
Setting				
Individual or quiet setting				
Prompts for students with severe attention problems				
Presentation Format				
Sign language or oral interpreter				
Braille versions				
Large-print booklets				
Coloured-paper versions (regular or large- print)				
Audio CD with regular- or large-print booklets				
Assistive technology formats				
Response Format				
Use of computer or word processor or assistive devices and technology				
Audio recording of student responses				
Verbatim scribing of responses				
Other (please write below)				

In accordance with Ministry Guidelines (i.e. Growing Success) some teachers report providing accommodations to students without IEPs, please rate how often you have provided the following accommodations to students **without** IEPs on your **classroom assessments** this school year? If an accommodation is not listed please fill it in at the bottom.

Accommodation	Not at All	Sometimes	Often	Always
Setting				
Individual or quiet setting				
Prompts for students with severe attention problems				
Presentation Format				
Sign language or oral interpreter				
Braille versions				
Large-print booklets				
Coloured-paper versions (regular or large- print)				
Audio CD with regular- or large-print booklets				
Assistive technology formats				
Response Format				
Use of computer or word processor or assistive devices and technology				
Audio recording of student responses				
Verbatim scribing of responses				
Other (please write below)				

Please rate how often you have provided the following accommodations to students with IEPs on **EQAO assessments (Primary or Junior Division)** this school year? If an accommodation is not listed please fill it in at the bottom.

Accommodation	Not at All	Sometimes	Often	Always
Setting				
Individual or quiet setting				
Prompts for students with severe attention problems				
Presentation Format				
Sign language or oral interpreter				
Braille versions				
Large-print booklets				
Coloured-paper versions (regular or large- print)				
Audio CD with regular- or large-print booklets				
Assistive technology formats				
Response Format				
Use of computer or word processor or assistive devices and technology				
Audio recording of student responses				
Verbatim scribing of responses				
Other (please write below)				

Please rate how often you have provided the following accommodations to students **without** IEPs on **EQAO assessments (Primary or Junior Division)** this school year? If an accommodation is not listed please fill it in at the bottom.

Accommodation	Not at All	Sometimes	Often	Always
Setting				
Individual or quiet setting				
Prompts for students with severe attention problems				
Presentation Format				
Sign language or oral interpreter				
Braille versions				
Large-print booklets				
Coloured-paper versions (regular or large- print)				
Audio CD with regular- or large-print booklets				
Assistive technology formats				
Response Format				
Use of computer or word processor or				
assistive devices and technology				
Audio recording of student responses				
Verbatim scribing of responses				
Other (please write below)				

In your opinion, for those students **without IEPs** who normally receive accommodations in the classroom but do not on EQAO assessments, does not having a test accommodation affect the motivation of these students on **EQAO assessments**?

YES/NO Why or why not?

A test is considered a valid measure when the test score is an accurate reflection of a student's abilities and therefore the conclusions drawn from the test score are accurate. In your opinion, for those students **without IEPs** who normally receive accommodations in the classroom but not on EQAO assessments, is their EQAO test result a valid measure of their abilities?

YES/NO Why or why not?

#### **APPENDIX C: Survey Instrument**

#### **Informed Consent**

Title: Accommodating students on classroom and large-scale assessments: Teachers' perspectives and validity issues

Researcher: Angela Leishman, Masters of Education Candidate, Lakehead University

Supervisor: Dr. Christina van Barneveld, Associate Professor, Lakehead University

The purpose of this study is to examine potential validity issues of large-scale assessments for students without special needs who are receiving accommodations in the classroom. This study is being conducted specifically within Northern Ontario for EQAO's Assessments in Reading, Writing and Mathematics, Primary Division (Grades 1 - 3) and Junior Division (Grades 4 - 6).

Current teachers of grades 3 and 6 classrooms in Northern Ontario are being invited to participate in this research. If you agree to participate, you will be asked to respond to a series of 7 hypothetical vignettes where you will imagine that you are the teacher of a typical grade 3 or 6 class in an Ontario elementary school. You will also be asked about your opinions on the validity of accommodations. At no point are you asked to identify specific individuals or institutions (i.e. name of school) and are requested to refrain from doing so throughout the survey. This survey will take approximately 45 minutes to complete.

Your responses will be kept confidential and anonymous. Your responses will be stored in a locked space for a period of five years after which they will be destroyed. Only the researchers identified above will have access to this data. At the conclusion of this study you will be redirected to a new survey. Here you will be asked to provide contact information to receive a \$25 honourarium in the form of an Indigo gift card. This information is not linked to your responses in this study.

We do not anticipate any risks resulting from this study. Upon completion of the study you will be given a \$25 honourarium for your participation. This study is completely voluntary. You may decline to answer any questions and are free to withdraw at any time without penalty. However, please note that withdrawal following completion of the survey will not be possible due to the anonymity of the data.

The data collected will be used in a Masters of Education thesis by the researcher. The data may also be used in publications and presentations by the researcher or supervisor. No identifying information will be used in this dissemination. If you would like a summary of the research results in aggregate form please contact amleishm@lakeheadu.ca.

If you have any questions regarding this study feel free to contact me, Angela Leishman (amleishm@lakeheadu.ca) or my supervisor, Dr. Christina van Barneveld (cvanban@lakeheadu.ca) at any time.

This study had been approved by the Lakehead University Research Ethics Board. If you have any questions related to the ethics of the research and would like to speak to someone outside of the research team please contact Sue Wright at the Research Ethics Board at 807-343-8283 or research@lakeheadu.ca.

\*1. I have read and understood the above consent form. I understand that my participation is voluntary, that I may choose not to answer any question, and that I can withdraw at any time prior to completion of the survey. I understand that there are no foreseen risks and that I will receive a \$25 honourarium at the conclusion of the study. I understand that the data from this study will be securely stored at Lakehead University for a period of five years. I agree to participate in this study.

Agree

**Demographic Information** 

Accommodating students on classroom and large-scale assessments:
2. What is your gender?
O Female
O Male
Other
3. In addition to your teaching certification, what is the highest level of education you have
received?
O Technical Diploma
O 3-Year Bachelor
O 4-year Bachelor
O Honours Degree
O Masters Degree
O Doctoral Degree
4. Have you ever taken any of the following Additional Qualification Courses?
Special Education Part I
Special Education Part II
Special Education Specialist
I have not taken any of these courses.
EQAO Experience
5. Have you received training or preparation for EQAO assessments?
V Yes
I have no experience with EQAO assessments.
6. If "yes," from whom did you receive this training?
7. If "yes," did this training or preparation include information on accommodations?
O Yes
O No
Teaching Experience

Accommodating students on classroom and large-scale assessments:
8. Are you currently teaching any of the following grade levels? Please select.
Grade 3
Grade 6
O I am not currently teaching either of these grade levels.
0
9. How many years of experience do you have teaching at your current grade level?
10. How many years of experience total do you have teaching?
Instructions
In responding to the following vignettes imagine you are the teacher of a typical Grade 3 or 6 class in an Ontario elementary school. Your students will be taking EQAO's Assessment of Reading, Writing, and Mathematics at either the Primary Division (Grade 1-3) or Junior Division (Grade 4-6) level respectively.
Vignette 1
A student in your class tends to better demonstrate his abilities on classroom assessments when he is in an individual setting. The student does not have an Individual Education Plan (IEP). <b>11. What would you do in this classroom?</b>
12. What would you do during the EQAO Primary or Junior Division Assessment?
Vignette 2
You notice that a student is often inattentive during your classroom assessments? The student does not have an Individual Education Plan (IEP).
13. What would you do in this classroom?
14. What would you do during the EQAO Primary or Junior Division Assessment?
Vignette 3

Accommodating students on classroom and large-scale assessments:
You have a student who you believe has a vision problem. You have spoken to her parents who say they will take her to an optometrist when they "get the chance." They have not yet done so. The student does not have an Individual Education Plan (IEP).
15. What would you do in this classroom?
×
16. What would you do during the EQAO Primary or Junior Division Assessment?
× •
Vignette 4
You have a student who you believe has a hearing problem. You have spoken to his parents who say they will take him to an audiologist when they "get the chance." They have not yet done so.The student does not have an Individual Education Plan (IEP).
17. What would you do in this classroom?
18. What would you do during the EQAO Primary or Junior Division Assessment?
To. What would you do during the EQAO Frimary of Junior Division Assessment?
<b>*</b>
Vignette 5
A student in your class tends to better demonstrate her abilities on classroom assessments when she is typing rather than writing. The student does not have an Individual Education Plan (IEP).
19. What would you do in this classroom?
20. What would you do during the EQAO Primary or Junior Division Assessment?
×
Vignette 6
A student in your class tends to better demonstrate his abilities on classroom assessments orally rather than written. The student does not have an Individual Education Plan (IEP).

A	ts on classroom and large-scale assessments:
21. What would you do in th	lis classroom?
	×
22. What would you do duri	ng the EQAO Primary or Junior Division Assessment?
	<u> </u>
	Y
Vignette 7	
A student in your class has an Individual Edu she refuses to use it.	ucation Plan (IEP) for assistive technology. Even though she has been provided the accommodation
23. What would you do in th	iis classroom?
	*
	Y
24. What would you do duri	ng the EQAO Primary or Junior Division Assessment?
_	×
	<b>v</b>
Validity Introduction	
Thank you for your responses to the vignette:	s. You will now be asked about your opinions on the validity of accommodations.
Validity of Accommodati	ons
	mately what proportion of students in a typical grade 3 or 6 modations in the classroom without an Individual Education
	<u> </u>
	*
student's abilities and there your opinion what are the va	alid measure when the test score is an accurate reflection of a efore the conclusions drawn from the test score are accurate. In alidity issues of large-scale assessments for students without
mulvioual Education Flans	(IEPs) who are receiving accommodations in the classroom?
	×

			<b>*</b>			
you would like a s	summary of the resea	arch results in aggree	ate form please co	ntact amleishm@lake	eheadu.ca.	
		lirected to a new sur o your responses in t		e asked to provide co	ontact information to re	ceive your \$25 Indig
	eak to someone out				uestions related to the e esearch Ethics Board a	

#### **APPENDIX D: Code Lists**

## **Code List for Vignettes 1-6**

**Topic:** Decision regarding providing accommodations to students with IEPs

Code	Definition and notes	Sample quotes
Class_Accom_Yes	Respondent would provide an accommodation in the classroom without an IEP. Note: This does not include reading the question or providing extra time.	"Accomodate as much as possible, read questions when neccesary, place student at front of class, close to teacher."
Class_Accom_No	Respondent would not provide an accommodation in the classroom without an IEP.	"I would talk to the facilitator of the school to see what our options were to ensure the student has their best chance at success available to them."
EQAO_Accom_Yes	Respondent would provide an accommodation during EQAO without an IEP. Note: This does not include reading the question or providing extra time.	"See if larger print instructions are available. Reaffirm the importance of eye health to the parent. Discuss with the if I believe that there is a risk of success."
EQAO_Accom_No	Respondent would not provide an accommodation during EQAO without an IEP.	"If they don't have an IEP for vision, then they must complete the assessment on their own. I will only read the writing and math questions to them if they ask. Most of the students in my class who have vision problems mostly have problems seeing the board."

# **Topic:** Type of accommodation provided

Code	Definition and notes	Sample quotes
Accom_Setting	Respondent would provide an accommodation involving changes to the environment as identified by EQAO to a student without an IEP. This only includes: individual or quiet setting; and prompts/re-direction.	"I would have the student work independently in the classroom or he may choose to go and sit quietly in the assisted learning classroom."
Accom_Pres_Format	Respondent would provide an accommodation involving changes to the presentation format as identified by EQAO to a student without an IEP. This only includes: sign language or oral interpreter; Braille versions; large-print booklets; coloured-paper; audio CD; assistive technology formats (Word, PDF, or RTF).	"Make large print copies of the text"
Accom_Resp_Format	Respondent would provide an accommodation involving response format as identified by EQAO to a student without an IEP. This only includes: use of computer or word processor or assistive devices and technology; audio recording of student responses; and scribing.	"Offer for student to complete task on a computer or for a scribe."
Accom_Other_Setting	Respondent would provide an accommodation involving changes to the environment not permissible on the EQAO to a student without an IEP.	"See if there is a cubby or semi-private space in the classroom available."
Accom_Other_Pres_Format	Respondent would provide an accommodation involving changes to the presentation format not permissible on the EQAO to a student without an IEP.	"Give her a magnifying class [ <i>sic</i> ] if needed and if she had time to practice it ahead of time"

Accom_Other_Resp_Format	Respondent would provide an accommodation involving response format not permissible by EQAO to a student without an IEP.	"Scribing, use of voice-text software to complete assessment."
Accom_Modification	Respondent identifies an accommodation he/she would provide that is actually a modification (changing of the assessment itself).	"I would find more ways to assess the students that involve assessing differentiated instructional activities and pieces of work."
IEP_Develop	Respondent would develop an IEP to provide accommodations.	"Discuss with parents, principal, and Spec Ed teacher to determine whether or not an IEP needs to be put in place."

**Topic:** Decision regarding following policy in each context

Code	Definition and notes	Sample quotes
Class_Policy_Yes	Respondent is following Ministry of Education policy in the classroom in regards to accommodating students. This includes providing an accommodation to any student, regardless of IEP status.	"Discuss with parents, principal, and Spec Ed teacher to determine whether or not an IEP needs to be put in place."
Class_Policy_No	Respondent is not following Ministry of Education policy in the classroom in regards to accommodating students.	"Nothing."
EQAO_Policy_Yes	Respondent is following EQAO policy during assessment in regards to accommodating students. Students must have an IEP to receive accommodations; however teachers are allowed to read students the question (math and writing sections only) and provide extra time to any student.	"Unless they have an IEP, you can do nothing."
EQAO_Policy_No	Respondent is not following EQAO policy during assessment in regards to accommodating students. This includes providing a non-IEPed student with an accommodation or providing a non-permissible accommodation.	"Make large print copies of the text or offer a magnifine [ <i>sic</i> ] glass"

## Code List for Vignette 7

**Topic:** Use of IEPed Accommodation for Resistant Student

Code	Definition and notes	Sample quotes
Accom_Use	Text described that student would use (or be encouraged to use) the accommodation that he/she is IEPed for.	"Encourage him/her to use the assistive technology, make sure he/she had a lot of support so he/she would feel comfortable."
Accom_Change	Text described that a different accommodation would be used than that which the student is IEPed for.	"Offer an alternative form of accommodation, e.g. reading instructions, scribing."
Accom_Others	Text described that other students would be accommodated with the accommodation originally only intended for the IEPed student.	"Establish class norms in the use of technology. Students who feel they are "different" often refuse help until they realize it can be benefical [ <i>sic</i> ] to their learning. Having ipads, laptops in the classroom for all to use helps them feel more normal."
Accom_Optional	Text described that the IEPed accommodation would be made optional to the student.	"I would have the student complete the tasks any way she is comfortable."
Accom_Nothing	Respondent states that they would do nothing if student refuses to use the IEPed accommodation.	"Nothing."

## Code List for Validity Question and Additional Comments

**Topic:** Teacher responses to validity question

Code	Definition and notes	Sample quotes
Comment_Valid	Teacher believes that EQAO assessment results are valid for students.	"Young students need and consistently receive accommodations as this is how we ensure the assessment is not affected by irrelevant factors. Only for those few confident, motivated, mature, focussed students are the results equivalent when comparing classroom assessments and EQAO"
Comment_Invalid	Teacher believes that EQAO assessment results are not valid for students.	<ul> <li>"Tests can be stressful for all students, and those students who require accommodations outside of an IEP may not be accurately reflected in a large scale test."</li> <li>"Teachers accommodate students to better suit their learning styles. Teachers also differentiate their instruction so students may feel success in their learning . EQAO just gives them a written test that only suits a couple learning styles. Basically sink or swim."</li> </ul>
Comment_Unclear	Teacher's comment is misinformed or confusing. It is not related to validity.	<ul> <li>"Teachers are having them put on IEPs to ensure they have support for a pencil and paper type of assessments. These tests hold very little validity."</li> <li>"To get a true assessment of students best potential you need to use whatever assessment works best for them."</li> </ul>

# Topic: Additional Comments

Code	Definition and notes	Sample quotes		
Comment_Solution       Teacher's comment offers a solution to the problem.		"I strongly believe that ieps should not have to be written for accommodations. We accommodate students all the time, in dozens of different ways. That's just good teaching, and shouldn't have to be written up in a formal iep."		
Comment_Validity	Teacher's comment is related to validity.	"The test is unfair to the regular child who is suddenly required to work for extended periods without any support (including pointing out missed questions). It is even more unfair for the child who does have an IEP and is on a modified program and suddenly is required to do grade level work."		
Comment_None	Teacher explicitly states he/she has no additional comment.	"Not at this time."		
Comment_Other	Teacher's comment is related to something else, not stated above.	"Great questions, look forward to hearing what you discover."		

## **APPENDIX E: Selected Examples of Comments by Teachers and Related Inferences**

Vignette	Comment by Assessment Context		Inferences					
-	Classroom	EQAO	Accommodation with No IEP Followed Policy					r
			Classroom	EQAO	Match <sup>a</sup>	Classroom	EQAO	Match
Individual Setting	"Discuss with parents, principal, and Spec Ed teacher to determine whether or not an IEP needs to be put in place."	"See if there is a cubby or semi-private space in the classroom available."	No	Yes	No	Yes	No	No
Inattentive	"I would provide them with headphones and quiet seating. I would prompt them to stay on task."	"I would give them a barrier and headphones during the assessment."	Yes	Yes	Yes	Yes	No	No
Vision Problem	"Seat the student at the front of the room. I would enlarge photocopies so it is easier for her to read."	"I would develop an IEP before the test so that the student would have access to a scribe; more so for the fact that the student could then ask the scribe to read the allowed parts of the test."	Yes	No	No	Yes	Yes	Yes

## Vignettes 1-6

Hearing Problem	"I would give the student preferential seating in the classroom to make it easier for them to hear. I would reduce the amount of background noise. I would use the surround sound system in my classroom."	"The student would write the regular assessment."	Yes	No	No	Yes	Yes	Yes
Prefers Typing	"Put IEP in place to have assistive technology options."	"Only if IEP is in place -due to the fact that in the testing environment, these can only exist with previous IEP."	No	No	Yes	Yes	Yes	Yes
Prefers Oral	"Provide oral examinations when appropriate. When reporting to parents on student progress, make sure to let them know that he best demonstrates knowledge orally over written."	"Prepare an IEP requiring a scribe."	Yes	No	No	Yes	Yes	Yes

<sup>a</sup> If a teacher selected the identical accommodation for both class and EQAO it was a "match." Note: if teachers selected multiple accommodations for either context and any of the accommodations were repeated in each context, it was considered a "match."

Vignette 7

Comment by Assessment Context		Inference
Classroom	EQAO	-
"Try to gain confidence in that student so that they feel comfortable and supported with the technology."	"Throughout the year I would work with the student so that hopefully by the end of year this would not be an issuehowever, I would try to follow the wishes of the parents and student."	Teacher would encourage the student to use the accommodation provided by the IEP in the classroom. Teacher would make the accommodation optional to the student for the EQAO.
"Always make the technology available, allow for other students in the classroom to use the same kind of technology as she does (take the stigma away)."	"This would all depend on the case. If the student had not used the technology all year, I would not expect (or want) the student to use it come EQAO time."	Teacher would encourage the student to use the accommodation provided by the IEP in the classroom but would also allow other students to use the accommodation originally only intended for the IEPed student in the classroom. For EQAO, the accommodation would be made optional to the IEPed student; no other students would be allowed access to the accommodation.
"Offer an alternative form of accommodation, e.g. reading instructions, scribing."	"Encourage her to use the technology and if that didn't work I would have her complete the assessment without the accommodation."	Teacher would change the accommodation in the classroom and would offer an accommodation not in the IEP. However, the teacher would encourage the student to use the original accommodation for the EQAO assessment or provide no accommodation.
"Continue working with the student so they might become more comfortable with it."	"Use it if comfortable with itif not, ensure child has a scribe."	Teacher would encourage the student to use the accommodation provided by the IEP in the classroom. Teacher would encourage the use of the accommodation on EQAO but may also change the accommodation to one not on the IEP.

Comment	Inferences
"Large-scale assessments do not reflect the overall ability of the knowledge and skills in my classroom. I find it ironic that we equip students with the tools to learn, for example, access to resources and the ability to ask questions for clarification, and we abruptly rip them away in an artificial setting that does not truly reflect how the real world works."	The EQAO assessments are not valid because the mode of testing is different than the classroom assessments.
"Tests can be stressful for all students, and those students who require accommodations outside of an IEP may not be accurately reflected in a large scale test."	The EQAO assessments are not valid because the tests are too stressful for students and therefore they do not accurately demonstrate their abilities.
"Good question. I think it is definitely a concern. I think that the test is less valid because they are not receiving the accommodations they would normally receive."	The EQAO assessments are not valid because students are receiving inconsistent accommodations between the classroom and the EQAO.
"Young students need and consistently receive accommodations as this is how we ensure the assessment is not affected by irrelevant factors. Only for those few confident, motivated, mature, focussed students are the results equivalent when comparing classroom assessments and EQAO."	The EQAO assessments are valid for students who are confident, motivated, mature, and focused. Accommodations are used to ensure students can access the test content, that the test will not be affected by disability ("irrelevant factors").