A Qualitative Study of Principals' and Vice-Principals' Awareness, Readiness, and

Response to Discrepancy in Student Outcomes in a Greater Toronto Area School District

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**Abstract**

This qualitative study explored principals' access, use, and response to discrepancies in student outcomes that reflect systemic inequities. Discovering how principals access, use, and respond to complementary school climate data to attend to issues of disproportionality is an important step toward making schools more equitable and more inviting. Principals' behaviours with various data sources were explored in relation to Gorski's (2015) framework of equity literacy by examining principal knowledge and skills in recognizing, responding to, and redressing inequity. Historically, the focus of school improvement has been primarily on student achievement although some school districts—such as this GTA school board—have developed more robust systems of data collection employing greater disaggregating factors revealing inequities in various populations of students. Systemic inequities have been seen in data about school context, student assets, and well-being factors such that measurement of inequity has become possible. This study began with questionnaire data that exposed significant variations with regard to principals' equity literacy and beliefs. Selection criteria were used to focus on principals who articulated their commitment to equity and demonstrated higher awareness of discrepancy in order to identify promising practices. The purposive sample of school principals was interviewed, again revealing substantial variance in equity literacy. Unexpectedly, almost one-third of principals did not recognize patterns of social inequity in their data. Although participants reported a commitment to equity, interviews revealed much variance between individuals and therefore an inconsistency in capacity to redress inequity. Some principals revealed strategies that could be transformational in creating more equitable schools yet the knowledge and skills required were far from universal. Key threats to using data for equitable purposes were also brought to light including "not seeing" inequity, and underdeveloped data and equity literacy skills. These threats suggest there is a need to employ more consistent techniques to redress inequity and that stronger policies may facilitate better monitoring of equity outcomes.

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**CHAPTER ONE: INTRODUCTION**

Discovering how school administrators (principals and vice-principals) access, use, and respond to complementary school climate data to attend to issues of disproportionality is an important step toward making schools more equitable and more inviting. It is unlikely that change will occur without deep exploration of how precisely these data are being used to support all students in equitable and inviting ways. This study has been structured within a critical framework that contends that disparities in outcome data need to be identified and responded to systematically in order to make schools more inviting, equitable, and socially just in a global way. The study also sought to identify how administrators work to achieve a measurable reduction in disparities in achievement and school completion outcomes between social, cultural, economic, linguistic, cultural, and asset- and skill- based groups. While the group of interest in this study was primarily principals, some vice-principals assumed data-leadership activities in ways that were functionally equivalent in this exploration and were included in the questionnaire phase of this study.

This chapter begins by contextualizing this study with respect to some of the key factors of school improvement and it also critiques some of the shortcomings of those approaches. Over the past 40 years, a growing body of research has confirmed the importance of a school learning climate (e.g., Brookover et al., 1978; Freiberg, 1999; Thapa, Cohen, Guffey, & Higgins-D'Alessandro, 2013) for not only the well-being of the student but also because positive school climate is associated with and predictive of academic achievement (Cohen, McCabe, Michelli, & Pickeral, 2009). Cohen et al. (2009) define school climate as:

the quality and character of school life. School climate is based on patterns of people's experiences of school life and reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures. However, school climate is more than individual experience: It is a group phenomenon that is larger than any one person's experience. A sustainable, positive school climate fosters youth development and learning necessary for a productive, contributive, and satisfying life in a democratic society. (p. 180)

Although researchers agree on the importance of school climate, there remain some differences among them in terms of theories and foci, variables measured (and their hypothesized interrelationships), and the issues related to validity of subjective and qualitative data (Anderson, 1982). Scholars have focused on various aspects of school climate with differing emphases placed on the importance of safety (Booren, Handy, & Power, 2011), on subjective well-being (Diener & Suh, 2000), on happiness (Noddings, 2003), on engagement (Skinner & Belmont, 1993; Willms, 2003), as well as on teaching for social justice and diversity (Banks, 2004; Cochran-Smith, 2004). In an increasingly globalized world, the full range of school climate variables that affect outcomes and students' experiences need to be considered to ensure goals of equity and equality can be achieved. While this research primarily focuses on how principals recognize and respond to discrepancy visible in their data, I am mindful of some of the disagreement in the literature noted by Espinoza (2007) with respect to notions of inequity and inequality. Having said that, I believe schools should have an important role to play in redressing inequities particularly with respect to student experiences of school with a view toward similarity of outcome by minimizing disproportionality. Discovering how school

administrators access, use, and respond to complementary school climate data to attend to issues of disproportionality is an important step toward making schools more equitable and more inviting.

Various educational models have been suggested in an effort to support all students within the learning climate. An invitational model (Novak, 2002; Purkey & Novak, 1996) suggests the importance of creating trusting, respectful, optimistic, and intentional learning environment in schools. Hattie (2009) argues the invitational approach can result in the most powerful positive effects in schools (p. 33). Similarly, the assets-based models (Scales & Leffert, 2004; Willms, 2003) encourage the fostering of students' developmental assets—those factors that students bring to the learning environment that can be further developed in schools such as building relationships, empowerment, values and skills, commitment to learning, engagement, social competencies, and positive identity. The reason for using such measures for equitable purposes is to ensure that disaggregating variables are sufficiently present to identify differences in needs and experiences of students from various backgrounds. At the time this study took place, the following demographic disaggregating factors were available in the *Tell Them From Me* (TTFM; see Definitions of Terms section in this chapter) survey system: sex; immigrant and newcomer status; grade; special needs/IEP status; English/French Immersion program status; and Indigenous status. Since the completion of data collection, the following factors have been added as available disaggregations but they would not have been available to principals participating in this study: dis/ability status, gender identity and LGBTQ status, racialized identity status, and applied learner

status. Socioeconomic status is available for study at the board level but not all results are

reported by SES at the school level.

Although factors relating to social, cultural, and economic capital have been

successfully measured (Caro, Sandoval-Hernández, & Lüdtke, 2014), some have been

reduced to proxy indicators of socioeconomic status (e.g., parental education, books in

the home) where the depth and breadth of their influence on student outcome has

potentially been underestimated when one considered the multigenerational effects of

these assets (Møllegaard & Jæger, 2015). However, when appropriate demographic

variables are collected (i.e., those reflecting diverse backgrounds of students), factors of

social engagement, teacher–student relations, student safety, and other factors such as

social, emotional, and institutional engagement (Willms, 2003) can be observed.

Discrepancies in outcome can therefore reveal differences in cultural, social, and

economic capital (Caro et al., 2014). Deepening understanding of the more complex

factors of student assets and experience by studying how these factors align with

particular groups of students is key to making discrimination, bias, and privilege visible.

However, school climate research historically has played a complementary role in

school improvement second to the standardized testing movement. School climate

research has traditionally focused more on school environment, while complementary

information about the experiences of students beyond standardized tests has only recently

been systematically measured using a wide-ranging set of demographic disaggregating

variable to identify areas of inequity. For example, the TTFM evaluation system

originated in Canada in 2004 and began implementations in 2007 (Willms & Flanagan,

2007). Since then, full implementations of TTFM tools have taken place in hundreds of

school districts (including provincial and state-level implementations in Alberta and New South Wales) and tender has been submitted for TTFM factor inclusion into PISA 2021 (Willms & Tramonte, 2015). As such, factors of well-being, context, and student assets (such as socioeconomic indicators linked to social, economic, and cultural capital as well as factors of student engagement, advocacy at home and school, rates of risky behaviours, emotional health, and family context which are measured by TTFM directly) are increasingly being used to better understand the role of broader factors alongside the academic measures in Ontario schools. Historically, educational research has been limited in its examination of between-group differences in experiences both within and between schools because of a lack of instruments with the necessary disaggregations to identify inequity in student outcomes. Attention to climate factors of student experiences has also not always kept pace with the development and use of academic measures of achievement and standardized tests. That is, No Child Left Behind in the United States and EQAO have become embedded in schools without any similar requirement with respect to well-being, context, or asset-based measures. Rarely has close and careful attention been paid to between-group differences in experiences and achievement such that understanding the overall direction toward the goals of equity—achieving similar experiences and outcomes for all subgroups of students—could be consistently or confidently made.

Efforts have now been made by some Ontario school districts to systematically move beyond the traditional accountability of standardized tests that have a narrow focus on reading, writing, and mathematics assessments. These school districts are starting to incorporate the use of assets-based and climate measures that include variables such as gender, sex, sexual identity, gender expression, grade, socioeconomic status, immigrant

status, ethnicity, race, culture, language, ability, faith, and First Nation status allow educators to examine the school climate and student experience in more depth and by providing student voice on issues that impact them. This information is then utilized by the schools and school boards by embedding student-oriented goals into multi-year and board improvement plans. Such goals have created an emphasis on student experiences in school improvement plans and school actions. This movement towards using data to set goals and examine between-group differences can assist schools and school boards in answering the question: How equitable is schooling for all students? As such, interventions aimed at addressing disproportionality in student assets and experiences have become possible when they pay attention to variables such as gender, sex, sexual identity, gender expression, grade, socioeconomic status, immigrant status, ethnicity, race, culture, language, ability, faith, and First Nation status.

### An Illustrating and Inspiring Anecdote

The following anecdote is included here to illustrate the type of intervention that inspired this investigation. It did not arise as a result of this study. It arose from the work of a principal who declined participation in this study but was agreeable to my request to share the story for this project.

In this principal's school, the staff, school administrators, the school leadership team had some theories about the participation rates due to their awareness of the high percentage of those of Muslim faith within the immigrant population. It was surmised that there might be faith related factors connected to the falling participation rates. The staff was itself one of the most diverse in the district but it was also through their historical work with the equity and diversity teams in the board that provided some cultural clues about the results. Parental engagement

was quite high in the community and so there were already a few solid personal relationships in place and a venue through school council meetings to bring the concern to table for the community. Discussions with parents revealed that particularly as girls approached and entered puberty, the Islamic values of modestly, humility, and dignity were discussed as being important factors in sustaining the social engagement of girls in sports and extracurricular activities. Through conversations with school council and parents, the suggestion was made to increase the variety of school sports- and spirit-wear from school shirts and shorts only, to options that included both long-sleeved shirts and sweatpants as well as sports hijabs. While the existing supplier of school gear did not offer the latter option, one was quickly sourced and Muslim-friendly sports gear was introduced in the school by the end of the year.

As of this writing, more modest spirit-wear in the school is becoming commonplace and there are anecdotes of increasing participation in school sports by immigrant girls. Enlisting the input of parent stakeholders and providing a more inviting and thoughtful approach to the availability of spirit- and sports-wear stands to make an important difference in the social engagement of all students. The initiative, however, was not without its detractors. The school principal received feedback from one staff member in response to the effort. They wrote anonymously that it was not the school's mandate to cater to students of various cultures because that is why they have their own communities for doing their own "cultural things."

That staff member's stance provided the most compelling reminder of the resistance facing equity work and it revealed the importance of sustaining and growing

capacity in redressing inequity. This study aimed to find other such examples, examples that might shine a light on the work that is happening to redress inequities and the work that still needs to be done.

## Purpose

This study sought to find out how one set of school administrators (principals and vice-principals) in a large public school board in Ontario use information and data to solve school improvement problems for the purposes of "raising the bar" and "closing the gap"—the chief goals for school improvement in Ontario (Barber & Fullan, 2005, p. 6). However, since educational data use has most prominently been predicated on "objective" high-quality data, the contested terrain of data use in terms of the discourses of accountability are considered thoroughly in the literature review. Although the critique of standardized tests in the literature is strong, I argue—notably—that standardized tests have also shed light on and confirmed disparities in achievements that are worthy of consideration alongside the more recently available and complementary school climate factors considered in this study, such as Willms's (2007) *Tell Them From Me* survey tools which allow consideration of school context and student assets and experiences based in a wide set of demographic variables. While more will be said about these tools later, it is worth noting that despite known limitations standardized tests have played an important role in making some population inequities more visible.

## Problem Statement

How school administrators access, use, and respond to preventable differences between and within groups of students in complementary measures of school climate, context, and well-being—beyond the factors revealed by the accountability movement—

is poorly understood and has not been studied systematically. At the time this study took place, the TTFM tools provided data that could be disaggregated to student sex, grade, special needs status, immigrant and newcomer status, program status, and other factors that could be added at the board and school level. Even though using data to inform practice has become mandated for schools, administrators, and school boards for the purposes of improving decision-making and increasing accountability, historically it has focused only on achievement. In Ontario data use is governed by the School Effectiveness Framework (SEF; Ministry of Education, 2013b) and the Ontario Leadership Framework (OLF; Ontario Institute for Educational Leadership, 2013). Despite general mandates, no specific mandates have existed to attend to disproportionality in school climate or well-being data. Recent developments in Ontario are set to change this. In the United States, disaggregations with standardized testing data are required but that has not been the case in Ontario. Furthermore, school leaders now have access to an increased body of data that includes information about culture, climate, well-being, and engagement factors originating from student voice via survey data. This seems an improvement from reliance on externally originating accountability data that have been predominant. School districts are beginning to attend to disproportionality in results.

In the school district in which this study took place, TTFM tools have been used from 2010 until present. That has created a 7-year-old dataset on school context and well-being data based on student surveys, in some cases supplanting the focus on standardized and narrow achievement data. Although the shift from standardized testing foci to student voice and well-being foci is happening, this area has remained understudied in Ontario. This study explored this changing accountability context as it appeared in 2016 when interview and questionnaire data were collected and it opened a space for principals to

discuss the way they use data for equitable purpose—to identify and respond to preventable differences in the outcomes of subgroups of students based on these more recent forms of data.

## Research Questions

The purpose of this project was to research how school administrators in a diverse set of schools in the Greater Toronto Area (GTA) understood and addressed disproportionality (as an indicator of inequity) when considering complementary and disaggregated student voice data. In order to address the primary research question, the following questions guided the focus in this investigation:

1. How do administrators access and inform themselves with information and data about differences between populations in their school?

2. How do administrators use, understand, and interpret discrepant information to support judgments and determinations about direction and school needs?

3. How do administrators respond—that is, what leadership actions do they take based in attending to differences in population data? How do administrators redress inequity?

These questions align with Gorski's (2015) framework of developing equity literacy in terms of recognizing, responding to, and redressing inequity. Discovering how school administrators access, use, and respond to complementary school climate data to attend to issues of disproportionality is an important step toward making schools more equitable and more inviting.

To answer these questions, a questionnaire was developed in consultation with supervisory officers as well as school-based and system principals responsible for equity

and well-being aspects of student achievement, and administered using a cognitive interviewing technique (Beatty & Willis, 2007). The questionnaire provided the scope of analysis and results considered to situate the context of the inquiry. A purposive sample from questionnaire respondents was selected based on the submitted evidence that suggested commitment to the work of equity and that showed attention was being paid to discrepancies in data that revealed the presence of inequity in schools. Probing questions (listed in Appendix A) were developed with the goal of reaching saturation on the topic. Data saturation generally refers to the process of gathering and analyzing data until no new insights are being observed (Mason, 2010).

## Rationale

This study was predicated on the need to continue to move in the direction of creating more equitable schools. Measuring inequity requires disaggregated information that has not traditionally been available. Presently, the body of literature on the topic of data-informed decision-making is considerable and predominantly theoretical. That is, numerous texts explore the various data in schools, providing guidelines and suggestions on how to use data, but most research on the topic focuses on: building capacity for using data (Ikemoto & Marsh, 2007; Passey, 2013); systemic strategies for using data (Kerr, Marsh, Ikemoto, Darilek, & Barney, 2006; Wayman, Cho, Jimerson, & Spikes, 2012); building cultures of inquiry (Katz & Earl, 2010); or precursors to data use in terms of how it is conceptualized (e.g., Jimerson, 2014). This study took place in 2016 and no specific research exists on how administrators (principals and vice-principals) apply and respond to data to address issues of disproportionality in Ontario where dynamic surveying such as TTFM is being used. Here, there has been considerable silence.

However, school districts in Ontario are increasingly using complementary school climate data and information to identify and respond to disparities in outcomes between groups of students. Some boards, such as the one proposed for study in this case, have embedded student generated voice and survey data into school and board improvement plans such that the goals pertaining to equitable outcomes may be achieved. However, the environment in which school climate data has supplanted foci on standardized tests with their narrow measures of achievement has not yet been studied. There is a paucity of research that examines the accountability, data-based, and information-use practices of school administrators who have embedded school climate data and their disaggregations in their leadership actions (e.g., Lachat & Smith, 2005; Wayman, Stringfield, & Yakimowski, 2004); yet, these actions are necessary precursors to systematic attempts and effecting equitable change. Therefore, examining student data has resulted in some important educational understandings that are increasingly emphasizing student voice and experience over externally mandated standardized tests.

All information, however, can be critically important in identifying inequities so long as the appropriate disaggregations are done. We know now, only through disaggregations, about a number of achievement gaps present in our schools: in literacy attainment, in mathematics achievement, in graduation rates, and increasingly so in climate and engagement data and other measures based on self-report (Caro, 2009; Cherubini & Hodson, 2008; Hanna, 2003; Levin, 2007). In many instances, standardized tests are limited to the *what* of the state of affairs, and complementary school climate data can shine a light on the *why*. There remains a strong need to explore this topic because in Ontario we cannot say with any conviction that all student groups have similar

experiences and outcomes, even after 13 or 14 years of public schooling. That is, if school administrators are not yet able to fully identify and respond to between-group differences in the data, it seems unlikely that change will occur. Furthermore, sometimes the outcome data are actually worse—despite initial appearances—at the end of schooling than at the beginning because some students have left school; their performance is no longer included in the set of data, a fact potentially hiding the more severe disparities in student achievement by grade 12. To put the need for exploration into context: in Ontario, the number of high school leavers (formerly dropouts) as of 2013 was about 17% of students (Ministry of Education, 2013a) and in most cases we have not collected complementary climate data with them beyond the narrow achievement measures documented by standardized tests. Since school completion is an important predictor of students' long-term health and economic success (Freudenberg & Ruglis, 2007), addressing disproportionality in a systematic way using information and data provides a measurable and sustainable pathway toward the goal of attaining more equitable outcomes.

Recently, discrepant achievement and success patterns have prompted some scholars to re-examine what the achievement gaps are—in cases reconceptualizing them as opportunity gaps (Flores, 2007; Gorski, 2015; Huguley, Kakli, & Rao, 2007), a phrase that probably more adequately captures the antecedents to less successful outcomes. Other scholars have asked: "Where is the outrage?" (e.g., Giroux, 2015; Purpel, 1999; Scatamburio-D'Annibale, 2006) when we so clearly face discrepant outcomes between groups of students who have been historically or culturally disinvited. Although many societal disparities continue to be reproduced in schools, many more are being addressed

than ever before. Complementary school climate measures are now more frequently monitored in terms of student safety, well-being, engagement via assets-based approaches (Scales & Leffert, 2004), via skill- and context-based approaches (Willms, 2003), and via early developmental research (e.g., McCain, Mustard, & Shanker, 2007) through the Developmental Assets Framework, through the TTFM survey system, and through the Early Development Instrument (EDI), respectively. Even with such data, however, there is a need to understand how principals use this information because "whether intentional or unintentional, disinviting messages can have long-lasting effects" (Purkey & Novak, 1996, p. 15). That is, the mere presence of the data does not assure its use so this exploration can illuminate on how more recently available data can usefully be used to redress inequity. Such approaches would be familiar to school administrators as one way to think about opportunities for school improvement because in the board of study, the increasing use of climate and survey tools is directly based on this research.

Assets-based frameworks can be measured and they can also guide intervention by aiming to build student assets alongside improving teaching and learning experiences such that attending to disproportionality becomes possible. Discovering how school administrators access, use, and respond to complementary school climate data to attend to issues of disproportionality is an important step toward making schools more equitable and more inviting.

## Significance of the Study

This research study provides new insights and deepens understanding of how one set of school principals uses data for more equitable and therefore more inviting purposes. It extends the existing literature about the contested terrain of the

accountability movement and explores how, despite the prominent critiques, even standardized testing data have illuminated systemic inequities. Studying school administrators who are attentive to inequities has the potential to build understanding about how competing priorities or varying competencies function with respect to addressing inequities in our schools.

Conversely, low data awareness has the potential to obscure from knowledge the most vital student targets for improvement, whether that be with respect to climate, safety, or achievement. This study reveals how the pursuit of more equitable schools with richer and more nuanced data tools can make a difference. Not all administrators are using data in the same kinds of ways and not all administrators were expected to have same level of efficacy with their data. Therefore, this study used a targeted sample based on the self-reported data. This study also adds to a growing body of research on how school administrators use data generally, but specifically it fills a gap in the literature with respect to understanding how school administrators value and use disaggregated data to attend to disparate patterns of attainment in their school populations. Understanding such disparities is both an ethical goal and a necessary one for overall school improvement. For example, when a large disparity becomes known in a large subgroup, setting targets to address them has two possible effects: First, such findings increase the likelihood that targets will address the identified disparity and size; and second, such findings simultaneously allow for targeted goals that are most likely to have the greatest effect on the overall population. Simply, the greater the subgroup disparity, the greater the possible effect on the whole.

The direction in Ontario is explicit: School improvement is about "raising the bar" and "closing the gap" (Barber & Fullan, 2005), yet almost nothing is known about how principals' commitments to equity in Ontario actually work to "close the gap" (i.e., attend to disparities in attainment between subgroups). This study explores a purposive sample of administrators who already use disaggregations to close gaps between groups of students. Finally, it is hoped that this study creates room to adopt an invitational stance with data—one that looks to meet mandates and address ethical dilemmas and possible dissonances by examining what principals understand about the scope and limitations of data use. In this way, findings may begin to illuminate how best to build capacity for appropriately used data in schools because one could currently follow all of the recommended practices with respect to data and decision-making and not necessarily be seen as leading for equitable purposes.

## Definitions of Terms Important to the Study

This section is included with the aim of ensuring clarity and consistency with the formal logic and contingencies described and because a number of terms featured have colloquial meanings that are dissimilar from their specialized meanings (e.g., "raising the bar" may commonly be interpreted as making something more challenging but in educational research it would be expected that the test for "raising the bar" is improved achievement). As such, the meaning used here follows from the usage in Barber and Fullan (2005). Other terms included here are unique to statistics or social research contexts that may not be universally familiar (e.g., disaggregation or cross-tabulation are included here for explanatory purposes) based on earlier feedback received from several readers of the initial proposal. Yet other terms are included to ensure disambiguation

when the terms may have evolved or are evolving to include a wider array of possible

meanings (e.g., social justice, as indicated below, is more fully explored within the

literature review). Finally, a number of terms are included to create a clear point of initial

reference for common acronyms used in public education in Ontario (e.g., EQAO or

BIPSA). All remaining terms represent my best effort to outline key concepts as they

would be operationally understood both academically and in practice in the board of

study:

- **Aggregate data:** subset data rolled up into a larger dataset (e.g., school data are

   aggregated to produce board-level results).

- **Between-group differences/variance:** differences that may arise when

   comparing the means of one or more subgroups to another on at least one or more

   factors (e.g., how did the set of girls perform on the reading assessments versus

   the set of boys?).

- **Bias:** influences, sometimes concealed, that may distort the results due to

   systematic, social, or cultural factors introduced, usually unintentionally, into the

   instrument

- **Board Improvement Plan for Student Achievement (BIPSA):** Bill 177

   establishes board responsibility for student achievement and well-being. It

   requires trustees to act as stewards of the board's resources and to develop a

   multi-year strategic plan aimed at meeting the needs of all students. The BIPSA is

   developed in the context of this multi-year strategic plan.

- **"Closing the gap":** the idea that when achievement data are graphed over time,

   or compared between earlier and later points, disparities in achievement between

subgroups are shown to decrease—that is, show less of a difference in outcome over time. Gaps in outcomes between groups can both increase and decrease regardless of the overall direction of outcomes of the whole group. Elimination of between-group differences can act as a marker of more equitable outcomes between groups.

- **Complementary data:** data and information used in school and school districts that are not mandated and consequently more likely to have variance in the use.

- **Confirmation bias:** the tendency for people who are more likely to seek out, retain, and use information that confirms existing beliefs rather than the contrary; sometimes also expressed as a tendency to ignore alternatives.

- **Continuous variable:** a factor or value that can take on any value in a range (i.e., an EQAO test score or an IQ test score).

- **Cross-tabulation:** a descriptive statistical procedure that allows one to compare the relationship between two categorical variables, typically in a table with one variable in a row and the other variable in a column.

- **Data:** any information that can be used to inform judgments and inferences, including qualitative and descriptive information as well as quantitative or numeric information; when data are used to support a proposition the more phrasing is usually termed evidence.

- **Deficit thinking:** attributing deficiencies to a group or individual members without attention to the effects of racism, poverty, or other forms of systemic, social, or cultural biases.

- **Disaggregate data/disaggregation:** to separate data/information into component parts organized by one or more discrete variable(s) (e.g., to view achievement data for just one grade rather than for the whole school).

- **Discrete variable:** a factor or value that comes from a finite set and in educational research often found as recorded values of sex, grade, program, and so on.

- **Disproportionality:** the over- or underrepresentation of a particular population in a context or dataset relative to the overall set that may reflect test bias, inequity, cultural mismatch, and/or discrimination.

- **Dual-track school:** a school offering both English and French Immersion programming.

- **Education Quality and Accountability Office (EQAO):** is an arm's-length provincial agency that tests grade 3 and grade 6 students in reading, writing, and mathematics, grade 9 students in mathematics, and grade 10 students (typically) with the Ontario Secondary School Literacy Test (OSSLT).

- **Equity/equitable:** a notion of fairness that pays attention to need (e.g., as contrasted with the word equal [i.e., meaning the same]). Same treatment may offer the same to all but it does not imply fair treatment in the presence of diverse needs.

- **Equity lenses:** perspectives or modes of diversity that may include ability, faith, First Nation, Métis, Inuit status, race, culture and language, sex, gender identity and gender expression, sexual orientation, and/or socioeconomic perspectives.

- **Equity literacy:** the knowledge and skills required to recognize, respond to, and redress conditions that are inequitable (Gorski, 2015).

- **Individualized Education Plan (IEP):** a legal requirement for students identified as having a special need or needs in Ontario.

- **"Raising the bar":** the idea that when achievement data are graphed over time, or compared between earlier and later points, they reveal general increases in achievement for the entire population. Outcomes for whole populations can either increase, decrease, or remain unchanged irrespective of between-group differences in outcomes. This meaning is consistent with the usage offered by Barber and Fullan (2005).

- **Single-track school:** in Ontario, schools that offer a single predominant language of instruction (i.e., English only or French only).

- **Social justice/injustice:** within the context of schools, social injustices occur in education when there are preventable differences in the outcomes of subgroups of students. Such differences can be measured/observed to occur within and/or between schools or within/between select populations both within or across schools. The inverse, however, is not necessarily true; that is, social justices cannot be assured simply because there are no measured differences in the population data due to reasons of exclusion, omission, or other limitations. A more comprehensive discussion of the rationale for this meaning is offered in the chapter 2 section titled On Purpose: The Pursuit of Equity and Social Justice.

- **Standardized test:** A test that has standard items with consistent procedures for administration and scoring that makes it possible to compare the performance of individuals and groups.

- **Subgroup/subpopulation:** in social research, a subset of the whole population based on one or possibly more intersecting variables or factors. I refer to the term here because it appears in some of the literature, but to be more precise and inclusive it is more appropriate to use the term subgroups because the groups I am referencing are a part of the whole population and in no way apart from that. It is also worth disambiguating that "sub-" can suggest "below" in some contexts, which is not at all the intention here. Therefore, I use subgroups to refer to groups of students that can be considered and identified through the use of variables such as gender, sex, sexual identity, gender expression, grade, socioeconomic status, immigrant status, ethnicity, race, culture, language, ability, faith, First Nation status, and other variables.

- **Tell Them From Me (TTFM):** an online survey and reporting system for students, teachers, and parents designed by Dr. J. Douglas Willms, Professor and Co-Director of the Canadian Research Institute for Social Policy at the University of New Brunswick (UNB) and Canada Research Chair in Literacy and Human Development. The system is designed to measure antecedents to learning, student assets, and factors such as school climate, safety, bullying, anxiety, risky behaviours, and student engagement. There are currently 200 school boards using TTFM across Canada, including 30 in Ontario.

- **Within-group differences:** differences that may appear when considering

   multiple factors within a subgroup (e.g., how did boys with a IEP do compared to

   boys without a IEP?).

Finally, as participants revealed relevant nuances of these concepts they are addressed

within the context of the discussion.

## Outline of the Remainder of the Document

Chapter 2 provides a review of literature focusing on the requisite background

with respect to historical accountability and mandated improvement practices in order to

situate this investigation. Tensions in the accountability contexts of school improvement

will give way to a discussion of the new opportunities in thinking about systemic

approaches to equity via data. By starting with a description on how notions of equity and

social justice are envisioned in this study links are made to show the connections to the

idea of disproportionality. The accountability contexts are shifting such that the

standardized testing movement—while still obviously related and deeply entrenched—is

giving way in places to complementary measures that are being disaggregated

intentionally for purposes that can be defended. Invitational and transformational

approaches are considered as they connect to school improvement approaches in relation

to the need for attending to disproportionality. Finally, the specific instruments, data, and

scope of informational opportunities available to administrators are described.

Chapter 3 provides a description of the qualitative methodology and description

of the development of the questionnaire, the procedures used in participant selection, and

the process of data collection. Chapter 4 describes and discusses the findings from the

questionnaire and from the interviews. Chapter 5 situates the findings in the research

context. Finally, chapter 6 provides a summary conclusion, implications, and

recommendations for the future.

**CHAPTER TWO: REVIEW OF THE LITERATURE**

The purpose of this chapter is to support the relevance of this research through review and analyses of the literature. Any investigation of data use in Ontario schools would be remiss in excluding the historical development of accountability frameworks that continue to be an integral part of legislative requirements in the United States and Canada. The traditional form of accountability focusing on achievement in mathematics and literacy has a long history and it has been sharply criticized by scholars. However, the wider availability of complementary school climate data more recently has allowed the goals of "raising the bar" and "closing the gap" to be seen in a new light that disrupts the idea that compliance with standardized testing is a sufficient goal for the purposes of school improvement. This literature review maps out the philosophical framing that supports the stated concern of the study: to understand how complementary school climate information is and can be used to create more equitable schools. It summarizes the literature that critiques the complex milieu in which data-informed decision-making takes place. It argues for the need to make room for the alternative, which involves consideration of how school climate and assets-based measures arising from student voice can provide a systematic path forward toward creating more equitable schools by specifically attending to disproportionality. Finally, the chapter discusses the role of specific complementary measures. Given the dialectic nature of qualitative research, some literature is also introduced as it pertains to the interviews that occurred during the course of this inquiry.

## On Purpose: The Pursuit of Equity and Social Justice

Friedrich Hayek's (1948/1976) work *The Mirage of Social Justice* was published in the tradition of classical liberalism, a philosophy first espoused in John Locke's

(1689/2013) *Two Treatises of Government*. Lockian liberalism (or classical liberalism as it is now called) marked a historical turning point in thoughts on human equality. Locke's second treatise, it might be argued, is the first clear philosophical assertion that people are inherently and essentially equal:

> The natural state is also one of equality in which all power and jurisdiction is reciprocal and no one has more than another. It is evident that all human beings— as creatures belonging to the same species and rank and born indiscriminately with all the same natural advantages and faculties—are equal amongst themselves. (p. 70)

Locke's notion of equality, however, was predicated on some important conditions—like being a male landowner—that today would cause somewhat more alarm than it did in his day. Conceptions of equality and equity have obviously changed and today inequality is increasingly viewed as having both social consequences as well as economic ones (Stiglitz, 2012).

Similarly, principles of social justice did not get to us easily. In fact, Hayek (1948/1976) argued that social justice is not a useful principle at all—that it lacks the characteristics of other virtues and that is liable to compromise classical liberal principles. Michael Novak (2000) provides a rich discussion of Hayek's reservations and summarizes this way:

> The trouble with "social justice" begins with the very meaning of the term. Hayek points out that whole books and treatises have been written about social justice without ever offering a definition of it. It is allowed to float in the air as if everyone will recognize an instance of it when it appears but most of the

descriptions they attach to it appertain to impersonal states of affairs: "high unemployment" or "inequality of incomes" or "lack of a living wage" are cited as instances of "social injustice." Hayek goes to the heart of the matter: social justice is either a virtue or it is not. If it is, it can properly be ascribed only to the reflective and deliberate acts of individual persons. Most who use the term, however, ascribe it not to individuals but to social systems. (p. 11)

The present study takes Hayek's point and considers how discrepant outcomes observed by individual school principals can signal inequity within the context of social injustice. That is, while the notion of equity presupposes a notion of fairness within the context of schools, *social injustices occur in education when there are preventable differences* in the outcomes of subgroups of students—those identified by a rich set of disaggregating variables reflecting modes of diversity that may include ability, faith, Indigenous status, race, culture and language, sex, gender identity and gender expression, sexual orientation, and/or socioeconomic perspectives. In other words, same treatment does not imply fair treatment in the presence of diverse needs. Of course, it should be said that variance in outcomes does not always signal inequality—but it is only when the patterns of variance align with population features that discrimination, bias, and privilege become visible.

Today, conceptions of social justice have expanded to include ecological, religious, and bioethical concerns, but for the purpose of this study social injustices occur in education when there are *preventable differences* in the outcomes of subgroups of students. Such differences can be measured or observed and might occur within or between schools between various populations of students. When based on high-quality

information and student voice, the possibilities of making school more equitable become measurable. Therefore, this study proceeds mindful of Portelli, Vibert, and Shields's (2007) reflection and direction:

> "Equitable education," "inclusive education" and "students at risk" are popular catch-phrases in current educational discourse. But catch-phrases run the risk of becoming slogans. In other words, rhetorical positions automatically endorsed without due critical attention to the purpose and consequences of our actions or the possible inconsistencies between our beliefs and values, on the one hand, and our practices, on the other. No one would want to argue against an equitable and inclusive education for students at risk. But when such terms are adopted by neo-liberal educational interests in the service of narrow notions of accountability, excellence, and success, and in the interests of increasing standardization, it is time to inquire further into their meanings in use. (p. i)

To be sure, this study explores the specific actions of administrators who already disaggregate data—a necessary precursor to demonstrating that the pursuit of equity is being undertaken in pragmatic, measureable, and tangible ways. Many administrators take up the offer of data in ways that improve the lives of students in the aim of social justice—doing things that make sense, and things that are done on purpose for purposes that can be defended (Novak, 2002). Unfortunately, one can have a strong belief that one is right and still be wrong, so the importance of good quality information and an understanding of the strength, limitations, and results of actions are necessary to confirm or challenge intuitions, biases, and understandings. Therefore, the pursuit of equity as afforded by this exploration is not merely wishful liberal thinking—or a naïve neo-liberal

assertion that aims to maintain the status quo. This study explored principals' notions of equity and action in cogent and pragmatic ways by exploring the practices of principals who have identified both interest and capacity in discrepant student outcomes.

## The Rise of Accountability in Ontario

In May 1995, the province of Ontario established the Royal Commission on Learning "to ensure Ontario's youth are prepared for the 21st century" (Ministry of Education, 1995). The report called for the creation of the Office of Learning and Assessment and Accountability, which was to become, in 1997, the Education Quality and Accountability Office (EQAO). EQAO's (2007) mandate was: "to ensure greater accountability and enhance the quality of education in Ontario via assessments based on objective, reliable, and relevant information" (para. 3). This change ushered in a new age of accountability in Ontario, following considerably on the heels of similar accountability movements in the United Kingdom and in the United States. Governance changes were made that mandated school councils, removed principals and vice-principals from bargaining units, and legislated the amalgamation of school boards. These changes also resulted in the creation of the Managing Information for Student Achievement (MISA) initiative to increase provincial and local capacity to use data for evidence-informed decision-making to improve student achievement (Ministry of Education, 2015). The Ontario School Information System (OnSIS) became the data collection component of the MISA provincial initiative. These initiatives created a repository of educational data that enabled and analysis and reporting of student achievement over time.

Livingstone and Hart (2004) described this period of change in Ontario as a "radical centralization of decision-making" (p. 2). This new age of accountability

followed the recommendations of the Royal Commission on Learning and was enacted

by the Harris government as Bill 160, the Education Quality Improvement Act, which

ensured large-scale standardized testing would become the backbone of data-based

decision-making in Ontario schools. The new age of accountability exists to the south, in

the United States, but has been interpreted in some notably different ways than in

Ontario. These differences will be examined next as a way to delineate the divergence of

goals. This divergence is important to discuss here because the goals have much

influence on the approach to the process.

### Differences Between Ontario and the American Experience

In the United States, the No Child Left Behind Act of 2001 (NCLB) ensured that

annual testing is federally mandated in all states, in all K to 12 public schools, including

for those attending charter schools. Furthermore, state assessment must be disaggregated

within each state by school demographic subgroups (i.e., by economic disadvantage,

disabilities, students with limited English proficiency—what we in Ontario would call

English language learners [ELL], by major racial and ethnic groups, and by gender;

Wenning, Herdman, Smith, McMahon, & Washington, 2003). NCLB has also developed

a "Race to the top" (RTT) competition, which is an incentive-based educational

framework being used by the federal government to try to improve educational

organizations. Although accountability requirements exist to show the public what value

is derived from large public expenditures, and large-scale assessments have become one

common measure of achievement in that respect, these policies do not seem to have

immediate relevance to Canadian contexts. That is, in Canada, and specifically in

Ontario, governments have stopped short of tying funding to poor-performing schools.

Contrary to the approach in the United States, public organizations such the EQAO have

joined others, such as the Canadian Psychological Association (Simner, 2000) in condemning or discouraging the rating and ranking of schools. As such, while accountability is certainly pervasive in Ontario schools the context is different with a different approach. Here, perhaps, this is a sign that accountability can be envisioned in more useful ways through the inclusion of practices of equity.

## The Historically Embedded Status Quo—The Use of Assessments

In Canada, every province conducts large-scale assessments at specific grade levels, and most provinces and territories participate in national and international assessments such as the Pan-Canadian Assessment (PCAP) and the Programme for International Student Assessment (PISA). In Ontario, elementary students in grades 3 and 6 are required to write the EQAO assessments in reading, writing, and math, at the secondary level at grade 9 in mathematics, and typically in grade 10 the Ontario Secondary School Literacy Test (OSSLT). These types of assessments largely have been criticized in the scholarly literature for political and utilitarian reasons and for their broader limitations in the assessment of student learning (Nezavdal, 2003; Ricci, 2004; Solomon & Allen, 2001; Taylor, 2001; Volante, 2007). While the shortcomings of the EQAO assessments are thoroughly explored (i.e., they lag indicators and are limited to pencil-and-paper tasks that cannot possibly reflect student learning in a rich and comprehensive way), they have nonetheless provided some more reliable benchmarks for monitoring provincial educational performance (Lee, Shin, & Amo, 2013; Mickelson, Giersch, Stearns, & Moller, 2013). For many schools and school boards, EQAO data are completely embedded as the backbone for school and board improvement plans—largely because they are the most available.

A quick survey of some of the Board Improvement and Multi-Year Plans in the GTA reveals (e.g., Durham District School Board [DDSB], 2015; Halton Catholic District School Board [HCDSB], 2013; Toronto District School Board [TDSB], 2014; York Catholic District School Board [YCDSB], 2016) confirms the predominance of achievement oriented goals and the near absence of specific and measurable equity goals altogether. For example, in 2014 TDSB focused on the literacy, mathematics, pathways and community, culture, and caring with no evidence of data disaggregation and with no equity targets. HCDSB references closing the achievement gap with no attention to inequity or corollaries of student achievement. DDSB references equity but only with respect to inclusive practices and equity of access providing no evidence of evidence-based attention to inequity or measurement of inequity. Similarly YCDSB provides a cursory goal of equity with respect to equity and inclusivity being embedded in the learning environment and includes no goals pertaining to discrepancy. These are not outliers. This is what has ended up in Board Improvement Plans when there is no mandate or direction to pay closer attention to measurable equity outcomes.

To be fair, TDSB has done considerable work in the area identifying their student demographics and has identified some areas for growth in their subgroups of students as a result of the Student Census (TDSB, 2015) but, as an instrument deployed only every 4 or 5 years, it is at best a deeply lagging indicator lacking the specificity required to respond more relevantly to the needs of students. This is where dynamic tools like TTFM, which provide immediate turnaround (24-48 hours) and can be run as needed and sometimes several times per year or with particular groups of interest, have a tremendous advantage with respect to school improvement. With the option of adding one's own

disaggregating variables, there is virtually no group that cannot be monitored with efficacy.

It is also important to consider what distinguishes the various purposes of assessment and monitoring. Diagnostic, formative, summative information serves difference purposes. Terms like assessment for/as/of learning need to be engaged more fully in order to fully examine the critique of standardized testing as it pertains to accountability and in terms of equity. It would be too onerous for the present work to tread fully into all of the types and purposes of and limitations associated with assessments in general but it is worth noting that criterion- and norm-referenced approaches have differing implications in terms of how generalizable they may be and for what purposes. Beyond issues of validity and reliability, assessment is almost always a complex social enterprise with stated and implied meaning with tacit and subtle implications for the way schools direct the goals of their work with students.

## Assessment Data: What Is Being Collected?

Because assessments and school improvement measures are vital to understanding the broader trends and patterns in education, and are used to set goals and direct resources and programming, a lot hinges on them being reliable, valid, and fair. Fairness with them is at the heart of equity. The challenge with all forms of assessment is that they all have limitations in scope, validity, utility, and purpose. Assessments can be used to stream and impede students, they can be flawed, and they can have serious social and life consequences for students. When Biesta (2010) asks whether we value what we measure or whether we measure what we value, he is really asking a more significant question about the purposes of assessment in education. We know that assessments can be

diagnostic, formative, and summative; they can be individual, criterion- or norm-referenced, performance based, large-scale, and standardized (i.e., universally administered and scored). However, the useful distinction about assessments used in this discussion is that some forms of assessment are legislated toward the end goals of monitoring and attaining accountability. In the domain of accountability, assessments are used for a myriad of purposes beyond the immediate needs of the student. While many assessments, it might be argued, do participate in accountability, not all serve the goals of equity. In order to redress inequity we must be able to measure students' outcomes in relation to factors of gender, sex, sexual identity, gender expression, grade, socioeconomic status, immigrant status, ethnicity, race, culture, language, ability, faith, First Nation status, and other variables. It has been argued that some types of outcomes measurement actually contribute to perpetuating inequities by reinforcing deficit—that is, by identifying the lagging performance of groups without thoroughly attending to the group assets which we know all students have. Furthermore, not all assessments serve accountability; many serve simply to guide next steps in instruction. Those that do serve accountability are those that meet particular criteria: that is, those that guide school and board improvement planning and those that assist the Ministry in monitoring the direction of growth in educational attainment.

Although the negative aspects of standardized forms of accountability have dominated much of the recent academic discourses, it is important to note that there is limited but growing evidence from the United States that accountability pressure of No Child Left Behind (NCLB) is having a positive effect on groups such as minoritized and disadvantaged students (Dee & Jacob, 2011; Gaddis & Lauen, 2014; Lauen & Gaddis, 2012). The research, however, remains contradictory with many negative effects of

NCLB continuing to be well documented (e.g., Lee et al., 2013; Mickelson, Giersch, Stearns, & Moller, 2013), research that continues to question the possible benefits when the detriments might outweigh them. For example, Mickelson et al. (2013) state that NCLB "ignores and obscures other school-based sources of inequality that include race and SES-linked access to teacher quality, continued segregation of schools along lines of race and class, ability grouping and curricular tracking, and resource inequality among the schools" (p. 19). Nonetheless, despite the debate in the literature on the size and direction of the effect that NCLB has had in the United States—and despite the absence of similar research in the Canadian context—it cannot be overstated that without a reliable method to compare the achievement and well-being of student groups, it would be impossible to make determinations about equity, fairness, or how differing groups of students are served by the educational system. The system cannot accommodate contexts or individuals without awareness of their existence and so addressing disproportionality remains the best and most viable method for attending to disparities in achievement and experience. Only the knowledge of notable gaps in achievement and well-being allows them to be approached. The key point here is that equity is measurable.

Therefore, it is argued that accountability-driven movements require objective and high-quality data. At the very least, all accountability-driven movements depend on the availability of some form of standardized assessments. These assessments have faced many critiques, but they have also opened up some possibilities. In spite of the tremendously prevalent critiques, standardized tests have shown an uncanny resilience and persistence in use because they are now often legislated and also because they are supported by the public (see Livingstone & Hart, 2004, 2012). While it is beyond the scope of this investigation to fully examine the public support of this form of

accountability, standardized tests remain embedded in other accountability practices that now depend on them. Despite data use having become embedded in the *Ontario Leadership Framework* (Ontario Institute for Education Leadership, 2013) and in NCLB in the United States, very little is known about how school administrators use complementary data for the purposes of attaining equity and thereby moving beyond compliance. As such, this study probes a much broader context with data that better serves equity. School districts are increasingly using asset-based, climate, and well-being data in conjunction with Nex technologies (i.e., data warehouses, electronic data and survey systems). This richer access to different disaggregated sources of data stands to shine a light on inequity and inform how to best respond. The principals in this study have the power to shape schools in important ways with the explicit aim of making schools more equitable and more inviting by identifying how they attend to complementary school climate data on purpose for purposes than can be defended.

**Data and Accountability in the Literature**

The set of research literature concerning the issues of accountability processes in public education is immense. A quick search of "accountability and education" in Google Scholar produces about 1.4 million search results. This topic is incredibly vast. Innumerable studies question not only the processes of accountability but also the philosophical underpinnings of the rise of audit cultures and standardized tests via the social interactions of schooling (e.g., Allington, 2002; McDermott, 2007; Ross & Gibson, 2007).

Governments around the world increasingly rely on various methods and strategies to ensure public education is accountable. However, many researchers have suggested that this pattern of auditing practices is deeply entrenched in neo-liberal values

which have now migrated from the economic sectors in which they originated (Hursh, 2000; Levidow, 2002). Accountability has become deeply embedded in the practices of schooling despite scholars who have offered rich and important critiques of the negative implications of the accountability movement.

This study moves beyond that critique by exploring the realities and possibilities in using a richer data set—one that importantly includes the larger use of qualitative and quantitative data sources to inform decision-making on attending to disproportionalities. The study delves in richer, deeper data—data that are generated from student voices and how administrators attend not only to what students know from the curriculum but also to how they fit in, what their concerns are, and what assets they bring to schooling. Richer data are now available but the way in which school administrators use them for decision-making to attend to disproportionalities is poorly understood. Although the rationale fully supports the unique role of school administrators in the process of accountability, the salient point is that accountability practices are embedded in schools because standardized tests have become mandatory in schools and in public boards of education. However, it is only when attending to disproportionalities in student voice and complementary climate data that research can begin to fully appreciate the possibilities of using data in the name of equity, on purpose for purposes that can be defended.

**The Rise of Accountability**

Popkewitz and Wehlage (1973) defined accountability in education as an attempt to apply management procedures to schooling. Wildavsky (1970) put it this way: "The request for accountability means holding the school system responsible for the achievement of children in critical areas" and "consumers are entitled to know what they are getting" (p. 212). These early views of accountability appear simple and

straightforward. However, Strathern (2000) argues that procedures of assessment have

become a global phenomenon with significant social consequences on time, personnel,

and resources (p. 2). Power (2000) calls accountability "rituals of verification" (p. ix) that

shape what is considered legitimate information (see also Power, 2003).

In the social context of schooling, auditing and accountability practices have had

many visible and overt but also subtle and less visible effects on schooling. Although this

exploration is vitally concerned within the Ontario context, some particular broader

background issues are relevant to what is happening here in relation to the United States

and the rest of Canada and elsewhere because practices and policies are both broadly

similar but regionally unique. There is little question that the accountability movement

has been predicated on standardized testing, and in Ontario there can be little doubt that

this is deeply contested terrain. Student achievement data are now readily available at the

local level and comparable across national and international contexts. The availability of

large-scale assessment data in schools has coincided with the expansion of auditing

practices borrowed from the economic and business realms and applied to the social

practices of schooling. In Ontario, the provincial government has set the goal of

increasing confidence in public education through the creation of reliable and valid

systems of audit, achievement, and performance appraisal to ensure accountability for the

large public expenditure in education.

However, accountability has been called a "slippery rhetorical term" (Charlton,

1999, p. 33). Apple (2005a, 2005b) and Biesta (2010) have questioned the usefulness of

the proliferation of auditing practices on public education. Charlton (1999) argues that

the culture of accountability has resulted in changing practices because practitioners have

had to increasingly adapt to auditing processes. Poulson (1996) and Biesta (2004) argue that accountability movements also contain strong discursive powers that shape the educational system in ways that should be further examined. Accountability mechanisms are becoming more refined as Western democracies continue to increase the accountability mechanisms in public education despite the abundant scholarly cautions and critiques of the accountability-driven philosophy of education. The debate about the scope and reach of accountability in education has gained prevalence in every facet of education from early primary to postsecondary schooling.

## The Ontario Critique

The rise of the accountability culture in education has resulted in an increase in the use of standardized and large-scale tests around the world. In Ontario, the EQAO (2007) offers that it "will ensure greater accountability . . . through assessments and reviews based on objective, reliable and relevant information" (para. 3). There have been doubts raised regarding the veracity of these claims (Dei & Karumanchery, 2001; Griffith, 2001; Maynes, 2001; Nezavdal, 2003; Ricci, 2004; Solomon & Allen, 2001; Taylor, 2001; Volante, 2007) originating as far back as the standardized tests themselves. The chorus of dissent with regards to various facets of the tests has been present since their inception (Resnick, 1980). Issues relating to bias, equity, and social justice leave the standardized test movement, in fact, with few academic supporters at all. That is not to say that the tests lack utility completely but rather that they are largely viewed as grossly unfair and often viewed as contributing to the challenges of equitable schooling. To be certain, the culture of accountability has been driven by other factors than scholars' blessing to improve schools and yet the movement has continued—and has exceeded—

the pace of the dissent (Tindal et al., 2001). Over and over, standardized tests have been

scrutinized and found to fail, most notably in their reliability and validity due to

socioeconomic and cultural bias (Berthelot, Ross, & Tremblay, 2001; Bracey, 2001;

Chase, 2001; Harris & Mercier, 2000; Hoover, 2000; Lewis; 2001; Merrow, 2001), and

the voice of academe has urged educators to resist implementation altogether (Kohn,

2000; Ricci, 2005).

Citing such deep issues with the tests, scholars who have used empirical data to

disturb the government's support have articulated critiques that aim to expose the tests as

driven by the "Conservative media machine" (Dei & Karumanchery, 2001, p. 197). Dei

and Karumanchery (2001) insist the tests are merely a product of the "common sense

revolution" (p. 199), in reference to the Ontario Conservative government's 1990s

platform under former premier Mike Harris. The suggested slogan was perhaps anything

but "common sense" and the glib public support campaign eventually faced a strong

retort. Labeled "undemocratic" (Ricci, 2004, p. 341) they have also been criticized on the

basis of an anti-globalization/marketization perspective (Griffith, 2001; Taylor, 2001) as

well from a Marxist critique based on the works of Michael Apple and Noam Chomsky

(Ricci, 2004). The critique has come from a wide-ranging set of directions and from

many academic voices.

Criticism of standardized tests' ideological origins is not the only scrutiny that

they have faced. There has been doubt regarding the veracity of the "authenticity of the

steady gains in test scores" as there has been "no conclusive evidence" to support them

(Volante, 2007, p. 2). Kornhaber (2004) charges that any improvements in scores are due

to "conditions unrelated to teaching and learning" being manipulated and are nothing

more than "gaming" (p. 56). According to Eisner (1998), "it is perfectly possible for a school's faculty to raise test scores and at the same time diminish the quality of education" (para. 11). Furthermore, standardized tests have been suggested to be part of a larger process to "manage populations" (Graham & Neu, 2004, p. 295) and have been the product of centralized decision-makers in Ontario (Livingstone & Hart, 2004), reflecting a growing rearrangement of power relations in education (Berlak, 1992; Verkuyten, 2000).

When academic discourses turn to answer the question of why standardized testing has gained such traction, there are several responses. Apple (2007) cites a trend of increased "audit cultures" (p. 169) making a fertile ground for a standardized testing movement. This notion is a new lens on the existing body of literature viewing the current model of education as being based upon a factory model of education (Serafini, 2002), directing attention to the accountability movement itself (Nezavdal, 2003; Pearson, Vyas, Sansale, & Kim, 2001). Linn (2001) implies a fad-like response to audit cultures, noting its positivistic roots that have historically shifted both in and out of favour, while Issler (2001) has reservations about the trend because of the dubious correlation between schooling and test scores. Similarly, in *A Joint Position Statement by the Canadian Psychological Association and the Canadian Association of School Psychologists on the Canadian Press Coverage of the Province-Wide Achievement Test Results*, Simner (2000) condemns the press coverage of the EQAO tests claiming the public is being "misinformed" due to a poorly represented "narrow position" (p. 1). Simner's point is important to remember with respect to the great public support for EQAO standardized tests because it is likely that media discourses encourage public support, in part, due to the way in which the media set the agenda for what might be seen

as important about EQAO standardized tests. At the least, the position suggesting that the public is simply not well informed seems tenable.

Finally, Tichenor and Tichenor (2005) have voiced concerns regarding the rise in the public's value placed on standardized tests and that they "undervalue" (p. 89) teachers' opinions despite their being considered by many to be the most important individuals regarding student success (Abrams, Pedulla, & Madaus, 2003; Bulterman-Bos, Verloop, Terwell, & Wardekker, 2003; Sunderman, Tracy, Kim, & Orfield, 2004). To further the argument that the tests are irrelevant or redundant is the fact that student background knowledge is one of the best predictors of student success (Dochy, Segers, & Buehl, 1999; Marzano, 2004; Tamir, 1996; Tobias, 1994). To this end, using richer contextual data is important to understanding inequity. Some interventions such as the *Ontario Focused Intervention Partnership* (OFIP; Ministry of Education, 2011) have missed this focus altogether because their improvement focus was based on narrow focus of "achievement" in "lower performing schools" (Ministry of Education, 2011, paras. 2-3). While a full analysis of the history of EQAO is impossible here, the point is that the literature is scathingly critical while public opinion remains steadfastly supportive (see *Public Attitudes Towards Education in Ontario*, Livingstone & Hart, 2004, 2012) and this approach has not worked in attending to inequity.

Following public-driven support, policies require school administrators to not only be compliant with the tests but also to engage with the data. The consistent provisioning of reports and supporting documents to schools and school boards has ensured that EQAO data are established and minimum data embedded and common to almost every school and board in the province in improvement and multiyear plans—

those documents required by the Ministry to ensure legislative compliance and ultimately

funding of public schooling in Ontario. While initially the compliance data provided

high-level views of some general patterns and trends, they also began to stimulate new

questions such as whether there were any notable differences between groups of students.

Unfortunately the notable small set of demographic variables (only sex, grade, and special

needs, French Immersion, and Applied program status historically have been available)

meant that these questions of inequity could not be answered with the available results.

**Toward the Alternative: Attending to Disproportionality**

Moving toward attaining the goal of equity in schools requires that schools have

ways to measure and address disparate outcomes and representation. Attending to

disproportionality between groups is important for systematic monitoring and

improvement and it is important to remember that discrepant and disproportionate

outcomes between groups are deeply incompatible with any claims that schools offer the

same opportunities for all students. Such claims are problematic simply because the

outcomes look so disparately and consistently inequitable. That is, social injustices occur

in education when there are preventable differences in the outcomes of subgroups of

students. In *Courageous Conversations About Race: A Field Guide for Achieving Equity*,

Gloria J. Ladson-Billings states that educators will observe inequity at work in some of

the following examples: gifted and talented classes comprised of nonrepresentative

students, overrepresentation of students who are "Black, Brown, or Indigenous" in

special education or remedial classes, and in disproportionate representation in

suspension and expulsion data (as cited in Singleton, 2014, p. xv). In Canada, Indigenous

overrepresentation in the criminal justice system has been well documented (La Prairie,

2002), as has underrepresentation in graduation rates in schools (White, Maxim, & Spence, 2004). White et al. (2004) also note there remains "a critical problem in terms of data availability and assessments of educational attainment" (p. 130). However, this gap in available data is being reduced in school districts such as the one in this study that have taken independent steps to address the quality and availability of data.

This change came about through a desire to more effectively measure school climate in 2010 and a request for proposals was tendered in the Board. In 2012, Bill 13, the Accepting Schools Act (Ministry of Education, 2013c) was passed which required school boards in Ontario to collect bullying and exclusion information based on race, gender, sexual orientation, and disability. Initially these disaggregations were only applied to bullying and exclusion but as these adjustments were made in the TTFM system to align with this legislation, it became apparent that the wider range of disaggregating variables could inform a much broader set of factors about discrepant experiences and outcomes. As such, complementary data based on student voice and experience is providing new opportunities to arrive at more equitable outcomes in education by identifying and responding to inequitable representation across multiple modes of schooling. The disaggregating factors have been growing to now include factors such as racialized students, dis/ability status, IEP status, and LGBTQ+ status, and also retain options for schools and school boards to add their own disaggregating variables.

In Ontario, school effectiveness mandates from the *School Effectiveness Framework* (Ministry of Education, 2013b) and use of data expectations from The *Ontario Leadership Strategy* (Ontario Institute for Educational Leadership, 2013) do not

articulate or require school administrators to disaggregate data for equitable purposes—that is, there is no mandate in Ontario to attend systematically to disproportionality and some of the best school climate and student voice instruments available have not been required use. Therefore, one could follow all of the recommended general practices with respect to data and decision-making and still not be compelled to take action or lead for equitable purposes systematically. It is only when administrators identify disparities in outcomes with an emphasis on complementary school climate, context, and well-being data that new keys can be discovered and acted upon. Some school districts are shifting their practices in terms of using complementary data and student voice measures and an increasing number of administrators are using these data to attend to disproportionality in their schools. As such, this study aimed to identify and learn from these administrators about this important shift because measurement is beginning to reflect the need to recognize and respond to inequity. We are beginning to measure what we value in school boards and this is a revolutionary shift in how data have been traditionally supplied and used.

Data are increasingly available to schools and boards that allow for much more sophisticated inferences about the outcomes of subgroups. Subgroups can be identified through the use of variables such as gender, sex, sexual identity, gender expression, grade, socioeconomic status, immigrant status, ethnicity, race, culture, language, ability, faith, First Nation status, and a myriad of other variables. Examination of these data can yield clues about the patterns and relationships in students who feel less invited or whether students who remain below standard in any academic measures or in measures of well-being share any similarities. In other words, these new data options can make clear

whether patterns reveal social and cultural discrepancies and disadvantages that can then be addressed. Data can be cross-tabulated in ways that provide new insights, and because school climate data are being monitored alongside other data more closely than ever before, new opportunities are being generated to respond to these new data intelligently and responsibly. As such, Gorski and Swalwell's (2015) notion of equity literacy is deeply relevant to this inquiry as new sources of disaggregated data emerge. Gorski (2015) proposes the following approaches to develop equity literacy: recognize, respond to, and redress inequity.

Although efforts to build capacity and data literacy are ongoing, Earl and Fullan (2003) have suggested that "principals and even district leaders . . . tell us that the data are sometimes impenetrable to them. Tables and graphs that are supposed to be self-evident fail to provide them with the insights that they feel ought to accrue" (p. 388). Despite this claim, data are collected and analyzed more consistently and frequently than ever before due to new technologies in social research and due to increasing use of computer data systems. Without deep exploration of how precisely these data are being used to support all students in equitable and inviting ways, it is unlikely that change will occur. Discovering how school administrators access, use, and respond to complementary school climate data to attend to issues of disproportionality is an important step toward making schools more equitable and more inviting.

Barber and Fullan (2005) state that "the central moral purpose consists of constantly improving student achievement and ensuring that achievement gaps, wherever they exist are narrowed. . . . In short, it's about raising the bar and narrowing the gap" (p. 6). Importantly, however, Wenglinsky (2004) has noted that there are really two kinds of

achievement gaps—those within schools and those between schools, and the actions that are required to address them would vary accordingly. Achievement gaps are probably best addressed with approaches that attend to the potential causes of disproportionality by asking the students rather than through global responses that are assumed to be good for all because redressing inequity requires precision, granularity, and intentionality. It will not happen by chance.

Long-standing and disturbing achievement gaps persist in education, including the disproportionate representations of minority students in special education programs (Skiba et al., 2008). Skiba et al. (2008) suggest that a number of factors may contribute to disproportionality, including test bias, poverty, special education processes, inequity in general education, issues of behaviour management, as well as issues of cultural mismatch and cultural reproduction. While studying all of the possible reasons for inequities is beyond the scope of this study, it is important to note that the reasons for disproportionality are not always fully agreed upon and issues such as socioeconomic status can be inarguably complex and sometimes ignored as beyond the scope of schooling (e.g., Hattie (2009) does this in the prologue to his works). Shifrer, Muller, and Callahan (2011) suggest that differences in socioeconomic status (SES) account entirely for African American and Hispanic students' disproportionality in special education identifications in the United States. However, it is important to recognize there is no clear definition for SES. The specific criteria for SES vary across the literature. Most components of SES apply directly to parents, so in most cases a child's SES will be the same as her or his parents'. K. R. White's (1982) meta-analysis describes three key factors of SES: income, education, and occupation of head-of-household. This narrower

definition does not take into account educational and home resources largely because these data are not typically collected in large population-based measures like the census.

Oakes and Rossi (2003) on the other hand define SES in a wider manner as a construct that reflects one's access to resources including goods, money, power, friendships, health care, leisure time, or educational opportunities. There are a number of inclusions into SES that can affect its definition. However, one commonly used proxy indicator of SES is income data that are widely collected in the census. Parental income data can influence the social and economic resources that are available to a student, but there is no agreed-upon way to measure this. Many studies explore particular aspects of SES—such as parental income, occupation, social class, social and cultural capital, and access to resources in the home in primary ways—and some researchers have also suggested the effects of low SES are cumulative (e.g., Ogbu, 2002). So while SES contains complexity that contributes to inequities, it would be shameful to believe that schools cannot make an impact.

Although the achievement gap in Canada is smaller than it is in the United States, it is still considerable (Levin, 2007). Gaps in achievement in Ontario have been noted in mathematics between boys and girls (Hanna, 2003) and between Indigenous and non-Indigenous populations (Cherubini & Hodson, 2008) and often on socioeconomic differences (Caro, 2009). Despite the challenges and complexities of attempting to mitigate the effects of low SES in schools, scholars and advisors to the Ministry of Education (Hargreaves, Lieberman, Fullan, & Hopkins, 2010; Levin, 2005) have called on the educational system to narrow the achievement gap between populations of students. However, Ontario's *Equity and Inclusive Education Policy* (Ministry of

Education, 2014) contains no specific requirements to measure inequity or disproportionality and therefore, as previously noted, inequity not been a focus for board improvement in the province. Although there are signals that more specificity in measurement of inequity is coming as of this writing, that has not been the case. As evidenced through many Board Improvement Plans (e.g., DDSB, 2015 HCDSB, 2013; TDSB, 2014; YCDSB, 2016), school boards in Ontario have sought to address inequities only in global ways based on resource allocations and redistributions. While rebalancing financial supports is important, it has not always been sufficient probably due to lack of specificity.

Other efforts have been made to level the disparities in school resources through strategies such as building community partnerships and by provisioning community supports such as Early Years Centres and other forms of parental drop-in centres in communities with higher needs. However, resource supports are often oriented more toward populations than individuals, so school boards have sought out alternatives that can more directly benefit students in schools. In the board of study, the primary model for addressing known inequities connected to SES in the region arose from the municipal region adopting the developmental assets model based on the work of Scales and Leffert (2004). These assets are defined as the positive experiences that all children need to maximize their potential. The assets are divided into external assets—appropriate support, empowerment, boundaries, and expectations, as well as constructive use of time— and internal assets, which are the values and skills that children develop and take up within themselves. These include commitment to learning, positive values, social competencies, and positive identity. Assets-based frameworks are an important consideration for this work because they are integrated into the sample Board at many

levels of leadership and are fully integrated into the community where this research takes place. As such, the asset frameworks are featured in conversations with school administrators both with respect to the gathering of measurable data as well as with respect to responding to disproportionality.

**Complementary Measures: Assets-Based Approaches to School Improvement**

Developmental assets-based approaches to learning (Scales & Leffert, 2004), assets-based and skill- and context-based approaches (Willms, 2003), and early developmental research (e.g., McCain, Mustard, & Shanker, 2007) are approaches to student well-being that have deep similarities in the way they each focus exclusively on measurable traits, experiences, and characteristics that are brought to all learning opportunities by students. Scales and Leffert (2004) identify external assets that include the positive correlates to well-being and achievement in the form of family and peer supports, community empowerment, safety, service to others, boundaries and expectations in families, among peers, and from role models, as well as use of time and community opportunities. Scales and Leffert also identify internal assets that include ideas related to commitment to learning such as motivation and engagement, positive values, social competencies, and positive identity. Willms (2003) identifies a number of family assets such as social skills, behaviours, cognitive skills, and family functioning, in addition to context measures, socioeconomic measures, and measures of social, institutional, and intellectual engagement. Willms's (2003) TTFM instrument has been central in collecting student-level data in the board of study.

Assets-based approaches to increasing student achievement and well-being are one effective and practical way to address the many concerns of critical theorists striving for more equitable academic, social, and economic outcomes for students who have been

culturally, linguistically, economically, or culturally disinvited. However, developmental assets are not themselves critical approaches. While assets-based approaches may exist alongside critical and emancipatory perspectives in school and serve similar goals, assets-based models are an approach designed to identify and improve student opportunity and student achievement in specific and measurable ways. Assets-based models (Willms, 2003; Scales & Leffert, 2004) increase opportunities in specific and targeted ways in schools that provide a direct benefit in terms of student experiences—that is, schools can have a direct effect on student engagement by guiding the task, schools can increase advocacy and mentorship opportunities, and teachers can teach discreet skills—in ways that can be systematically assessed using the measures subsequently described.

The work of Willms (2003), Scales & Leffert (2004), and McCain et al. (2007) are widely integrated into the board of study through Developmental Assets Frameworks embedded in board support resources and goals, through the *Tell Them From Me* series of stakeholder surveys, and through work based on McCain et al.'s (2007) research and the Early Development Instrument (EDI), which measures children's ability to meet age-appropriate developmental expectations in five general domains. These assets-based approaches and frameworks each focus on measuring and building on the conditions, opportunities, and traits of students that may be as much about context-based variables as on skill-based variables. For example, having a high level of engagement at school, strong expectations of success in a family, and healthy community role models are all considered assets because they are each believed to confer some benefit to student achievement and well-being. The assets in question correlate highly with student well-being, resilience, and achievement and although these various researchers have sometimes approached them slightly differently, the measures overlap in important and

consistent ways. Importantly, however, for the purposes of this study, these frameworks represent the dominant forms of complementary school climate data disaggregations being explored via administrators in this study.

However, assets-based research is also focused on understanding and improving opportunities for student learning. That is, they form part of the identification of need as well as the response. Although these approaches should be useful for critical researchers in identifying some of the skills- and context-based disparities in economic, social, or cultural advantages in the spheres of public health and schooling and in responding to them, the measures themselves are correlates (and often antecedents) to achievement and well-being. Understanding student assets can provide a measure of students' overall well-being, but is not an intervention in itself. It is worth noting that assets-based approaches are not necessarily focused on groups of students who have been historically disadvantaged for critical philosophical and economic reasons, so in that sense they are not necessarily similar to critical and emancipatory perspectives in education.

Nonetheless, they have the power to attend to equity and social justice and may well serve similar goals when the appropriate disaggregation and literacies with data and equity are present. It would therefore be more accurate to call them measures, tools, or approaches—albeit ones that can certainly guide interventions and response. Each of these assets-based approaches has been successfully measured through surveys and questionnaires, and has developed strong traction in many departments of public health and school systems in the Region of study as well as in the two coterminous boards within. It was expected that administrators selected for this study had some familiarity with the cited assets-based research and would be able to discuss aspects of how they use the frameworks to guide interventions in the pursuit of more equitable schools.

**Moving to Contextual Factors and Gaps in Opportunity**

The Ministry of Education (2016) did not take a clear and more focused stance on the goals of well-being in schools until the publication of its *Ontario's Well-Being Strategy for Education* discussion document, which ushered in a new era of broadening the focus of public education beyond factors of achievement. This was really a major policy shift away from the idea that monitoring achievement alone was a sufficient indicator for school improvement. To be fair, Bill 13, the *Accepting Schools Act* (Ministry of Education, 2013c) had already mandated measures with respect to bullying and school safety but did not branch out into other domains of well-being, such as engagement, belonging, risky behaviours, or other factors. Additionally, while the lack of measurement in itself is a challenge, the lack of a mandate to disaggregate data creates conditions that fail to make visible or understand potential patterns and differences between and within groups—those that are key to recognizing and attending to inequities.

Before reviewing some of the findings that administrators identified as important to the work of data monitoring for equitable purposes, I provide an overview here to clarify the intersection of the measures available in *Tell Them From Me* (TTFM) surveys that intersect usefully with Ontario's Well-Being Strategy (Ministry of Education, 2016) to keep the reader apprised of the types of factors that are measured using TTFM surveys and how they contribute to the Ministry's policy stance on well-being. The Ministry identifies the four domains of well-being as social, emotional, cognitive, and physical. Table 1 identifies the key data sources and measures currently available to monitor each Ministry indicated domain.

Table 1

*TTFM for Current Monitoring Options of Ontario's Four Domains of Well-Being*

| Ministry domain definitions & components | Board accessible well-being component measures |
| --- | --- |
| Social:<br>– The development of self-awareness, including the sense of belonging, collaboration, relationships with others, and communication skills<br><br>Components:<br>– Strong relationships; Belonging | TTFM:<br>– Advocacy at school<br>– Advocacy at home<br>– Sense of belonging<br>– Positive relationships<br>– Positive teacher–student relations<br>– Developmental assets (OKN also)<br>– Bullying<br>– Feeling Safe<br><br>Learning skill data:<br>– Collaboration<br>– Initiative (recognizes and advocates appropriately for the rights of self and others) |
| Emotional:<br>– The ability to learn about and experience emotions, and understand how to recognize, manage, and cope with them. It includes developing a sense of empathy, confidence, purpose and resilience.<br><br>Components:<br>– Positive sense of self; Positive sense of well-being; Resilience; Sense of spirit; Feeling safe; Feeling welcomed | TTFM:<br>– Anxiety (worry)<br>– Feeling safe<br>– Self-esteem<br>– Depression<br><br>Referrals to social worker/child and youth worker<br><br>Learning skill data:<br>– Self-regulation (perseveres and makes an effort when responding to challenges) |
| Cognitive/Intellectual:<br>– The development of abilities and skills such as critical thinking, problem solving, creativity, and the ability to be flexible and innovative<br><br>Components:<br>– Balance and interconnectedness between mind, body, and spirit; Engagement | TTFM:<br>– Interest and motivation<br>– Effort<br>– Skills challenge<br>– Intellectual engagement<br><br>Learning skills data:<br>– Self regulation (knowing myself as a learner) |

Table 1 (cont'd)

*TTFM for Current Monitoring Options of Ontario's Four Domains of Well-Being*

| Ministry domain definitions & components | Board accessible well-being component measures |
|---|---|
| Physical:<br>– The growth and development of the body, affected by physical activity, sleep patterns, healthy eating and healthy life choices<br><br>Components:<br>  – Healthy and active lifestyle inside and outside of school | TTFM:<br>– Healthy weights<br>– Nutrition (optional)<br>– Physical activity levels<br>– Risky behaviours<br>– Sexual health (optional; not previously in use)<br>– Participation in extracurricular<br><br>Breakfast and nutrition program data<br><br>EDI: Physical readiness to learn (i.e. motor skills)<br><br>Attendance data<br><br>Report card data: Physical Education and Health |

Note that some measures shown in Table 1 (e.g., bullying) may straddle domains depending on circumstances and aspects considered. Also included are the Ministry definitions of the domains as well as key terms used as sample component indicators (in Table 1's left column). A review of Table 1 should confirm that current measures have robust coverage of the domains of well-being articulated by the Ministry.

It is important to re-emphasize that in the research literature, there is no universal score or singular way of measuring well-being, so granularity on the provincial strategy needs to be developed. Well-being conceptually encompasses many possible factors within and across domains related to cognitive, emotional, social, and physical considerations. Some of the factors are thought to be antecedents to learning (e.g., safety and comfort) whereas others are probably best seen as corollaries to learning (e.g., engagement and relationships). Despite the lack of consensus about the weighting of factors or hierarchy of contribution for the elements of determining one's overall well-being, many factors of well-being can be effectively measured and evaluated through student self-report such as through TTFM tools or through teacher reporting such as learning skills, through demographic and other objective factors (e.g., attendance, population statistics), and in a variety of other ways (e.g., student health records, referrals to child and youth counsellor/social workers).

It is important to note that even where there may be agreement on the importance of measuring well-being, the lack of a single measure or composite measure of well-being need not been seen as a weakness. Well-being can be monitored through the measurement of a wide set of contributing factors, a practice that facilitates interpretation and response because the changes in single factors are easy to observe. Large composite

measures, if developed, may seem convenient but are more likely to conceal changes in factors and thereby make interpretations more challenging. It is not clear that a singular indicator measure of well-being would alleviate the challenges that arise from monitoring complex interactions of factors.

It is also important to note that all measures are systems of interpretation. Judgments and interpretations are enriched through increased understanding of the component parts (e.g., What questions contributed to this result?) and by deepening understanding of the relationships between measures (e.g., How does anxiety interact with advocacy?). Meaning is further enriched by considering results in relation to averages and norms, trends, between and across school comparisons, by considering the effects of socio-economic status in results, and by using measures that are reliable and valid that reflect factors that have known and tested relationships.

## Widening the Circle of Complementary Measures of School Climate

As Thapa et al. (2013) note, "there is not yet a consensus about which dimensions are essential to measuring school climate validly" (p. 358). Nonetheless, there are a several important models of school climate that require discussion and preference has been given to models that have been explored and supported by the board of study. Therefore, this review discusses two models of climate and their interactions. The first is invitational theory and leadership (Novak, 2002; Purkey & Novak, 1996), the inclusion of which would be supported strongly by Hattie (2009) who argues that the invitational approach can result in the most powerful positive effects in schools (p. 33). The second are developmental and assets-based models (Scales & Leffert, 2004; Willms, 2003) that foster students' developmental assets—factors that students bring to the learning

environment that can be further developed in schools. Both of these models support the ongoing need for research on student relationships, student safety, and other factors such as social, emotional, and institutional engagement and the impact these variables have on school climate and well-being (Willms, 2003). While these are strong global models for school improvement, discovering how school administrators access, use, and respond to complementary school climate data to attend to issues of disproportionality is an important step toward making schools more equitable and more inviting. Responding to inequity requires attention to variables such as gender, sex, sexual identity, gender expression, grade, socioeconomic status, immigrant status, ethnicity, race, culture, language, ability, faith, and Indigenous status. Willms's (2013) TTFM survey tools facilitate those possibilities.

## Invitational Approaches as Study Framework

This study calls forth invitational theory (Purkey & Novak, 1996) and invitational leadership (Novak, 2000; Novak, Armstrong, & Browne, 2014) because these approaches can have powerful positive effects in schools (Hattie, 2009, p. 34). However, these approaches alone are insufficient to determine whether inequities are being monitored and redressed, so for this we need measurement of student outcome based on factors such as gender, sex, sexual identity, gender expression, grade, socioeconomic status, immigrant status, ethnicity, race, culture, language, ability, faith, Indigenous status, and potentially other variables. Combined with the right disaggregated data, the right policy, and skills in equity literacy, this approach stands to have a major impact on inequity. Invitational theory, based on the perceptual tradition in psychology and sociology and on self-concept theory, offers optimistic and educative stances toward the valuing and

development of human trust, respect, optimism, care, and intentionality in five key areas

that should be attended to in order to fully invite human potential. As a sophisticated

theory of practice, the constructs of invitational theory are deeply connected to why, how,

and what it is to lead an educative and invitational life, and also provide a synthesis of

what is required to create more inviting schools. From a leadership perspective,

invitational theory offers a construct for attending to domains worthy of deep

consideration: the people, places, policies, programs, and processes of education. Of

course, my view as argued in the present research pays close attention to factors such as

gender, sex, sexual identity, gender expression, grade, socioeconomic status, immigrant

status, ethnicity, race, culture, language, ability, faith, First Nation status, and other

variables, which is needed if we are to say we are being inviting in these domains—we

need to determine how and to whom we are being inviting, and to be able to articulate

*how we know*. For that, we need evidence, and to that end I wish to suggest that

invitational theory would be benefitted through a clear strategy for acknowledging and

responding to inequity.

Therefore, one of the most important aspects of successful data use requires the

development of strategies and competencies for data-informed decision-making.

Wayman, Spring, Lemke, and Lehr's (2012) study of administrators' use of data

identified 12 principal strategies that have been shown as being effective in leading staff

in data use. These strategies include asking appropriate questions, communicating

effectively, having access to a data support system, distributing leadership, engaging in

personal learning opportunities, facilitating the learning of others, collaborating, using a

wide-ranging set of data, building common understanding, goal setting, modelling data

use, and structuring time to engage in data. Torrence (2002) found that many factors such as principals' attitudes, self-perceptions, professional development experiences, and personal competencies had a noteworthy influence in their use of data. Rogers's (2011) study of 253 rural school principals in Texas found that principal and staff ability to analyze data was significantly and positively associated with student achievement. Despite the considerable literature on various achievement gaps and on how to effectively use data (e.g., Haycock, 2001; Johnson, 2002; Ladson-Billings, 2006), the work of school administrators in addressing outcomes gaps in Ontario remains understudied and the effects of growing equity literacy unknown.

**Toward Invitational and Transformational Use of Data: The Role of Administrators**

School improvement requires changing or transforming existing practice. While the use of data has become an expectation in Ontario schools, the lack of consistency in data collection, available disaggregations, and equity literacy has not been well explained. However, the present research does not stop at pointing to this limitation. Rather, this study builds understanding about how school administrators access, use, respond to data to create more equitable and inviting schools. The positive influences of effective leadership and the call to improve leadership are well documented (Barnett, 2004; Barth, 1990; Beatriz, Deborah, & Hunter, 2008; Harris, Leithwood, Day, Sammons, & Hopkins, 2007). There is also little question that changing leadership practices are hoped to have positive effects in schools. The literature strongly supports that invitational (Egley & Jones, 2005b; Novak, 2000; Purkey & Siegel, 2002) transformational, and more distributed approaches to leadership (Davies, 2005; Hallinger, 2003; Spillane, Halverson, & Diamond, 2001; Stoll & Fink, 1996) can bring about the

kinds of leading environments that embrace the use of data in schools in ways that are informative and inviting as opposed to being prescriptive and stifling. Egley and Jones's (2005a) study of personal and professional inviting behaviours among school administrators found that higher professionally inviting behaviours were positively correlated with higher student scores on state standardized tests (p. 78). They also noted that higher degrees of inviting behaviours were also positively correlated with the amount of time per day administrators reported devoting to instructional leadership activities (p. 78). These findings are important because they indicate that effective instructional leadership has been shown to have a positive impact on instructional practice (Waters, Marzano & McNulty, 2003) and on student engagement (Quinn, 2002).

When students are not consistently taking up the offer of schooling, it is prudent to ask: Why not? It is similarly prudent to identify whether there are any patterns or similarities in the groups of students who appear to be disinvited based on the data. Although achievement metrics can provide important information, the measures of school climate related to sense of belonging, engagement, safety, and well-being must be seen as important correlates to successful schooling. It is probably fair to say that at first being inattentive to differences in between groups outcomes can be seen as being unintentionally disinviting, (In order to be inviting, I begin with the proposition that chronically ignoring disparities might be seen as being unintentionally disinviting. At some point, however, ignoring or failing to respond can almost certainly be described as being intentionally disinviting.) Interactions and actions that are intentionally inviting in schools are strongly supported by the research literature that takes a constructivist perspective toward knowledge because these approaches increase the valuing of unique

contributions of all students (e.g., Battey & Franke, 2013; Battey et al., 2013; Fosnot, 2013). While invitational theory describes ways in which schools can be more effective by being intentionally more inviting, the methods of making determinations of efficacy may not have been as fully developed as they could. Smith (2005, 2013) has revised the Inviting School Survey (ISS-R) in providing a fairly high-level view of how invitational theory may be applied in schools based on items affecting people, program, process, policy, and place. The instrument, however, does not currently collect any variables for further disaggregation in order to help identify any possible patterns among students from differing population groups and as such several other supporting models of measurement are used as indicators in this study.

### Interventions Based on Assets-Based Measures

Assets-based measures and interventions in the board have played an important theoretical role in framing conversations about increasing student achievement and well-being. Additionally, although Ontario Equity and Inclusive Education Policy work has been ongoing to increase equity literacy in Ontario, it is less clear if this effort has led to direct improvements to inequity. Developmental assets-based approaches to learning (Scales & Leffert, 2004), assets-, skill-, and context-based approaches (Willms, 2003), and early developmental research (e.g., McCain et al., 2007) are connected to student well-being that have deep similarities in the way they each focus exclusively on measurable traits, experiences, and characteristics that are brought to all learning opportunities by students. Many of these factors are measured in the TTFM annual school climate surveys conducted with 40,000 students in grades 4 through 12 (Willms, 2003). Willms (2003), in developing TTFM, identifies a number of family assets such as social

skills, behaviours, cognitive skills, context measures, socioeconomic measures, and measures of social, institutional, and intellectual engagement. Survey results have been frequently disaggregated for leadership teams in conferences, in learning sessions, and for school and board improvement planning purposes.

Achievement and climate outcomes can vary tremendously between groups. Disaggregating data to identify trends and patterns among groups of students is essential to guiding response. Examining this phenomenon is only a first step school leaders can take to provide more equitable outcomes for an increasingly diverse body of students. Identifying disparate outcomes is just the beginning—it will take the deed to respond to disproportionality in measured and thoughtful ways. From the standpoint of invitational theory, this means that inequity can be redressed on purpose for purposes that can be defended (Novak, 2002). That is, addressing inequities requires identifying the skill sets in order to guide next steps.

School administrators can decide to be intentionally inviting to subgroups or to send invitations to student groups who appear disinvited. In practice, inviting students to share their interests, for example, has resulted in programs and extra-curricular tailored to meet those interests. However, administrators are not likely to engage in actions that are beneficial and inviting if awareness of patterns in the data is low. Discussions can be used to gather more data to increase understanding about a phenomenon (e.g., What might you need in order to feel like you belong at this school?), and they can be both informal conversations or more structured attempts to go deeper by running focus groups. Invitational approaches can also work to build student voice and provide an opportunity for students to share in the construction of solutions. Although inequities may never be

fully addressable in schools the pursuit of progress in a systematic and inviting may be best considered a view to Novak's (2002) notion of optimistic and imaginative acts of hope. By delving deeply into the experiences of school administrators who have identified key skills in data use and attending to disproportionality with growing equity literacy, greater understanding can be gleaned for a more intelligent form of school improvement.

### A Closer Look at the Available Data and Information

New computer data systems have improved the availability, accessibility, and analysis options of data to schools, but there is a general lack of information on how school administrators use data to inform decision-making in schools (Datnow, Park, & Wohlstetter, 2007) and on how administrators use data to solve school improvement problems (Anderson, Leithwood, & Strauss, 2010). Brunner et al. (2005) have noted that "researchers have only a cursory understanding of educators' existing practices, and they know little about how these practices are informed by the influx of data-driven tools" (p. 242).

The types of data available to and within Ontario school boards can be classified as both internally and externally sourced demographic data, achievement data, process/program data, and perceptual data. In terms of demographic data, all Ontario public school boards have access to a similar set of student data drawn from the Ontario Student Verification Forms collected upon enrolment from parents/guardians, and these data contain some basic demographic information such as gender, enrolment history, and basic medical or special needs information. Schools also create additional demographic data from attendance and enrolment submissions. These data are fed back to the Ministry

on a regular basis to inform provincial educational statistics. Student achievement data are retained from report cards and along with other data (e.g., incident statistics) are submitted to the Ministry for their tracking purposes. The EQAO series of assessments provides additional universal achievement data for school and board planning purposes. Process data may have the most flexibility and variability in their collection in Ontario schools because schools and boards are required to articulate in their planning documents precisely what processes and strategies are being used to meet improvement goals. However, the Ministry provides few specific program or process mandates, so there can be considerable variation in the way school boards construct processes to improve student achievement. Nonetheless, it should be noted that there are some limitations to interventions due to some structures of schooling in Ontario that are so far largely inflexible (e.g., age-based grade grouping, program and curricular guidelines and documents). As such, although the inflexible aspects of schooling may certainly have relevant implications because they necessarily bracket the possibilities with respect to school improvement planning, they are not fully explored here.

Finally, some data are becoming more universal requirements; for example, public schools are mandated to collect perceptual data from students and parents served in the province with the passing of Bill 13, the Accepting Schools Act (2012), with respect to bullying and school safety. Also, all school boards are required to provide continuous evidence of school improvement via program and process data monitoring submitted through the board improvement planning process. While Ontario's Equity and Inclusive Education Policy may be improving, equity literacy so far has not mandated or guided the measurement of equity.

In general, data available are wide-ranging but with some important limitations. For example, while data can be disaggregated by any collected variable, most data are disaggregated by a few common variables such as sex, grade, and special-needs status. These basic disaggregations have made visible the areas and years where the "gender gap" appears and have drawn attention to disparate schooling outcomes for students with special needs. While the basic demographic data have been used to examine achievement trends for some large groups, the EQAO and school boards have not published achievement by smaller culture-sharing groups largely because questions of ethnic, sexual, and fiscal diversity have not been asked. Data available to and within Ontario school boards can be classified as demographic data, achievement data, process data, and perceptual data. Some of these data can be disaggregated in rich ways to identify important gaps in achievement and well-being for various populations. Such disparities in achievement need to be made visible in order to begin to address them. That is, equity is measurable but the question remains: Is it being done?

## Data Availability Beyond Standardized Tests

Standardized tests historically have anchored the accountability movement. A few years ago, there were scarcely any school improvement plans that included anything other than EQAO data. EQAO data, however, were collected external to classroom practices in traditional pencil-and-paper ways, sometimes relying on some leaps of faith to accept them as useful. For example, the continuing practice of assessing reading through writing continues to be a contentious issue. One need only ask: Would it not make more sense to assess reading through reading? That is not to say that it does not happen; it does. Teachers in the province use a variety of tools such as running records

and commercial assessments such as PM Benchmarks and the Diagnostic Reading Assessment (DRA), but these assessments are generally diagnostic in nature and would rarely be included in school improvement plans.

Times have changed, however, and the data available to Ontario schools have become quite sophisticated with data warehousing and efficient reporting tools available to all. In Ontario, schools are required to collect data from students and parents on climate, bullying, and exclusion at least once every 2 years as a requirement of the Education Act as amended by Bill 13, the Accepting Schools Act, 2012. In the school board of interest for this study, this requirement is being met through the use of the TTFM surveys based on the work of Douglas Willms, the Canada Research Chair in Literacy and Human Development.

TTFM is used to gather the range of voices that are present in schools. The titular "Them" is the leadership, the research departments, those tasked with setting direction for school improvement. These data are frequently shared back to the students, teachers, and the community in a variety of ways. Teacher and parent survey versions are also in use. The "Me" refers to students—providing their story, piece by piece: how they feel, how they fit, how they find their way through the resources—or do not. With this student voice data, for the first time ever in the history of data collection, there is something to lean against data such as EQAO, and to finally gain some topography. Without such topography—descriptions of the physical environments and students within them—we are left with numbers without interpretive insights. Available data can be categorized as: demographic data; achievement data; process/program data; and complementary school climate, asset-based, and well-being data.

**Demographic Data**

All Ontario pubic school boards have access to a similar set of student

demographic data drawn from the Ontario Student Verification Forms collected upon

enrolment from parents/guardians, and these data contain some basic information such as

gender, enrolment history, and basic medical or special needs information. Schools also

create additional demographic data from attendance and enrolment submissions. These

data are fed back to the Ministry on a regular basis to inform provincial educational

statistics. Due to sampling, frequency, and risk of student or class identification, these

data are infrequently disaggregated to smaller subgroups based on diversity in social,

cultural, economic, linguistic, cultural, and asset- and skill- based groups.

**Achievement Data**

Student achievement data are retained from report cards and, along with other

data (e.g., incident statistics), are submitted to the Ministry for their tracking purposes.

The EQAO series of assessments provides additional universal achievement data for

school and board planning purposes. While the basic demographic data have been used to

examine achievement trends for some large groups, the EQAO and school boards have

not published achievement by smaller culture-sharing groups largely because questions of

ethnic, sexual, and fiscal diversity have not been asked. Concerns about privileging of

some data over other types is probably best considered with respect to the limitations or

by asking what is not visible in the data. The limitations can also be considered within

sets and between sets or set types. Within the sets of data commonly available to schools

there are many disaggregations not visible because sometimes questions are not asked or

for some cases the sorting variables might produce numbers too low to report at specific

ethical thresholds (i.e., the performance or sense of belonging within a specified grade in a small school). There is caution used in order to maintain anonymity for those who would be obviously in a minority in the data, such as in the case of a transgendered student who, by self-identifying, would be more likely to be identified by those viewing the data. To adhere to anonymity, these very small groups must not be included due to their rarity.

### Process/Program Data

Process data may have the most flexibility and variability in their collection in Ontario schools because schools and boards are required to articulate in their planning documents precisely what processes and strategies are being utilized to meet improvement goals. However, the Ministry provides few specific programs or process mandates. Although there may be great variation in the way school boards construct processes to improve student achievement, it should be recognized that some structures of schooling in Ontario may limit response options that could provide benefit such as different pacing, moving away from age-based groupings, or other structural changes in the routines of schooling.

### Complementary School Climate, Asset-Based, and Well-Being Data

The primary computer data system being used in the board of study is the TTFM survey and reporting system. This system is now being used in over 200 school boards across Canada, often adopted by the province, and now reaching as far as full implementation in New South Wales, Australia, where work is underway to connect these results to achievement data. The TTFM survey tool collects broadly similar data from students in both the elementary and secondary panels. Due to readability and length considerations, the elementary survey was modified to increase accessibility. The

elementary survey is typically used for students in grades 4 through 8, and the secondary version for students in grades 9 through 12. Both surveys include the following domains: engagement (social, institutional, and intellectual), emotional health and self-esteem, physical health outcomes (activity and risky behaviours), academic outcomes, and drivers of student outcomes (quality of instruction, school and classroom context), social relations, and family context. All domains are addressed through subsets of indicating measures based on multiple items and derived measures, with each indicating measure being based on anywhere between one and 18 individual questions. For example, the domain of Social Engagement is based on the following measures: participation in sports, participation in clubs, sense of belonging, positive relationships, watching TV/media, reading books/texts for fun, using ICT, working part-time, volunteering, and using phones/devices. Results are reported as either a percentage of students who indicated, as a unit of time (e.g., time spent reading for fun) or as a scaled score for derived measures out of a possible 10 points.

All items can be charted individually and compared using points of comparison that provide contextual meaning for the values shown. These comparisons provide the necessary meaning for interpretation, and possible values include Canadian norms (e.g., the mean value across Canada for each item), a replica school value (the value for students who have an identical demographic profile based on sex, grade, and proxy indicators of income), as well as previous years' results, providing insights into developing trends and patterns of change over time. Furthermore, results can be compared to overall board results or to neighbouring schools or school clusters that may or may not draw from a similar region, community, or town, creating yet another point of comparison to assist with interpretation of results.

Each TTFM item can then be subsequently disaggregated by the following variables both at the school and board level: grade, sex, immigrant status, Individualized Education Plan (IEP) status, Indigenous status, home language, participation in French Immersion programming, school exit pathway (e.g., workplace, college/university, trades), outside school participation in activities, and by any other items that can be added at the school or board level (e.g., schools can disaggregate by feeder schools, breakfast program participation, or any other question desired). With respect to such comparisons, it is now possible to examine in great detail the differences that may exist among all measures and a large variety of particular populations, whereby two of the group selection variables can be cross-tabulated (e.g., immigrant status X sex) automatically. Further manual analysis can provide information to answer questions as specific as: How are students of Indigenous backgrounds with an IEP doing in the system on any particular measure? While such questions at the board level can provide very important insights for system direction, schools may choose to go more specific and ask: How are all girls with an IEP doing in the school, and how are they doing across the grades academically? What about those who are in also in a French Immersion program?

## Summary

I have reviewed a number of key contextual factors and described the key converging conditions in the literature that inform this study. The traditional literature on data-informed decision-making has not yet moved beyond factors of achievement and the research on the important antecedent and corollaries has grown to show that redressing inequity is going to take more than noting or responding to gaps in achievement. With that in view, I provided an overview of available data and have brought forth the literature that reflects some key conditions that support the direction of this work.

# CHAPTER THREE: METHODOLOGY

This section provides an overview of the research design and methodology, sample selection, procedures, and methodological assumptions. The purpose of this project was to research how one set of school principals in a large public school board in the Greater Toronto Area (GTA) Ontario received, responded, and redressed inequity in their data by attending to disproportionality. The district of study has been collecting student voice, asset-based, and well-being data for approximately 7 years.

The study relied on a questionnaire and interviews as primary sources of data. The selection questionnaire was developed using a cognitive interviewing process designed to allow for a purposive sample to be selected based on the central criteria of recognition of discrepant outcomes as well as interest and stated commitment to redressing inequity. Selection criteria were collected from the open text portions of the questionnaire. Principals were asked about their interest in participating in interviews and those lacking interest were excluded. In total, approximately 200 principals and vice-principals were invited to participate with an invitation and link to the questionnaire. Fifty-seven administrators responded to the questionnaire and 10 principals were selected for interviews based on their questionnaire responses. Some principals identified a desire to continue to the interviews but had to be excluded because they either failed to identify discrepant outcomes between groups in their data (suggesting low awareness or low equity literacy) or because they were unable to identify the presence of inequities more generally. For example, some principals stated there were differences in outcomes but suggested that the differences did not signal inequities. Others suggested factors such as population homogeneity as a reason to not need to attend to inequity. As described in the

previous chapter's literature review, this study took the position that inequities would become visible where there are preventable differences in the outcomes of various subgroups of students.

## Research Questions

The main research question is: How do school administrators in diverse schools in the GTA understand and address disproportionality (as an indicator of inequity) when considering disaggregated student voice and climate data?  In order to explore the primary research question in greater depth, the following questions narrowed the focus of my inquiry:

1. How do administrators conceptualize and update themselves with information and data about differences between populations in their school?

2. How do administrators use, understand, and interpret discrepant information to support judgments and determinations about direction and school needs?

3. How do administrators respond, that is, what leadership actions do they take based in attending to differences in population data? How do administrators redress inequity?

## Qualitative Approach

The study adopted a qualitative approach as a methodology in order to gain a deep understanding of how school administrators use, access, understand, and respond to their data. Padgett (2008) identifies several common characteristics of qualitative research designs that typically take insider rather than outsider perspectives (p. 2). Padgett also suggests that qualitative research typically takes a person-centred rather than variable-centred approach. This study is specifically a study of the knowledge, understandings,

and actions that school administrators take with data for equitable purposes. Although the study of judgments, inferences, conclusions, and actions is predicated on the way data are taken up, the study is about human engagement and response to the data and does not analyze student climate or achievement data except insofar as it is referenced or indicated by participating principals. Although the questionnaires provided rich data themselves, the thinking about the topic of working toward equity with data is complex and consequently required depth that can be achieved from interviews that could not possibly be gleaned from questionnaire approaches alone.

## Research Design

A general inductive approach was used for data analysis, which involved "identifying the core meanings evident in the text relevant to the research objectives" (Thomas, 2006, p. 241) to explore the particular phenomenon of principals' recognition, response, and redress of inequity based on a grounded theory approach to identify the context and less-well-understood problem of using data for equitable purposes (Sutton & Austin, 2015). The findings here were generated according to Thomas's (2006) coding process for inductive analysis proceeding from initial reading to grouping of specific text segments that were labelled to create categories subsequently grouped into themes. The purposeful sample of administrators was made on the basis of the data use questionnaire (Appendix B) designed to identify some demographic factors and to identify the degree to which disaggregated data—whether standardized, perceptual-self-report, or process— was being used to attend to inequities. By identifying data use practices with the questionnaire, principals were selected based on evidence that supported a baseline level

of sophistication with data and equity literacy with complementary school climate, asset-based, and well-being data.

This study used a qualitative design and grounded theory methodology (Sutton & Austin, 2015) along with in-depth interviewing to gather data on the topic. The study used a constant comparative technique whereby the process of gathering interview data, identifying preliminary categories, interviewing, and refining categories occurred until saturation on the topic (Creswell, 2002). Saturation was subjectively determined once it appeared further discussion provided no new data on the topic. Analysis of interview data used a thematic analysis approach with stages as suggested by Bernard and Ryan (2010); codes were developed as they emerged from the transcribed interviews and identified as anchors that related to the concepts. The concepts were organized into categories to yield patterns that informed both threats and opportunities with the use of contextual and disaggregated data.

**Study Procedures**

Since the aim of attending to discrepant data is to move beyond the notion of gap-gazing, which has been described as one of the lowest-level activities that can occur with discrepant data, it was important to probe more deeply. The interview approach used was based on what Seidmann (2013) calls "phenomenologically based interviewing" (p. 14) relying primarily on open-ended questioning to build upon and explore the principals' responses to the questioned posed in the questionnaire. Using a general interview guide approach, the same general areas of information were collected from each interviewee, which allowed greater focus than a conversational approach but still allowed freedom and adaptability in getting the information from the interviewee. Interviews were selected to

get to the story behind the participants' experiences once they had identified both interest in equity and high awareness of discrepancies in their data. In this way interviews were used to further investigate the questionnaire responses.

The recruitment questionnaire asked for preferred contact information from participants and contact was made with selected principals in spring 2016 to arrange a mutually convenient time to meet. School principals are generally in their schools for at least 2 weeks after the departure of students for summer break, so interviews were conducted during this 2-week period in early July 2016. Interviews were audio-recorded and generally lasted between 45 minutes and 1.5 hours. Over the course of summer and fall 2016, each interview was transcribed, pseudonyms were used, and identifying redactions made to be protective of the identity of participants. Principals were offered the opportunity to review the transcripts that were generated and no changes were requested.

## Selection of Participants by Questionnaire

The study invited all school administrators (principals and vice-principals) to complete an online questionnaire in one school district in the GTA, in both the elementary and secondary panels. Based on initial conversations with the Superintendent of Safe and Inclusive Schools and with consultants and administrators, it was felt that only a fairly small number of administrators would identify specifically with leading for equitable purposes with data via lenses of ability, faith, First Nation, Métis, Inuit status, race, culture and language, sex, gender identity and gender expression, sexual orientation, and/or socioeconomic factors. As such, it was not felt that a majority of administrators would identity disaggregations related to their respective schools' demographic diversity.

Therefore a recruitment questionnaire was developed to identify possible participants based on their patterns of data use on which attending to disproportionality must logically be predicated. That is, administrators needed to identify their previous use of complementary disaggregated data in order to be considered for interviews. The participant sample is therefore targeted and purposive.

## Questionnaire Development

Participant selection for the questionnaire was a convenience sample offered to all school administrators. Interviews were later requested based on a purposive sampling approach to align with the goals of the study. The questionnaire was designed as both a recruitment and demographic tool using a cognitive interviewing technique with equity and inclusive schools experts. The questionnaire is the first phase of data collection. Beatty and Willis (2007) define cognitive interviewing as the "administration of draft survey questions while collecting additional verbal information about the survey responses, which is used to evaluate the quality of the response or to help determine whether the questions generate the information the author intends" (p. 287). The Superintendent of Safe and Inclusive Schools, the System Principal of the Equity and Diversity team, and two school-based administrators (who would not participate in the study) were selected for cognitive interviewing in the questionnaire development.

There were two questionnaire objectives. The first was to select the population of interest from those school administrators who identified as being committed to equity and to identify those who claimed a high degree of disaggregated data use by a variety of subgroups. Questions were also developed that asked respondents to identify areas of inequity present in their data. These characteristics were determined through the

cognitive interviewing process during questionnaire development and were used to select

participants for follow-up interviews (a total of 10 respondents). The second objective of

the questionnaire was to gather baseline data to situate respondents and schools

demographically, and to provide some summary information about which types and in

what ways data were being used in schools with respect to: school improvement, sharing

with staff, and sharing with Supervisory Officers (to enable a consideration of the role of

the communication pathway from board improvement to school improvement planning).

Once conditions about the intended purpose of the instrument were clarified and refined

through the cognitive interviewing process at the board level through discussion,

revision, and consensus-seeking, the questionnaire was tested with two school-based

principals who provided some minor feedback in terms of clarity improvements. At this

point the questionnaire was vetted through the Superintendent and System Principal with

responsibilities for Equity to ensure agreement on its suitability.

The questionnaire asked about administrator background and demographics,

school demographics, and about which data are used for what purposes (as indicated in

Appendix B) in order to determine whether administrators have indicated data use

patterns consistent with attending to disproportionality in their results. The questionnaire

was offered to over 200 administrators representing more than 100 schools.

It was hoped that at least eight administrators could be recruited from the interviews

with a balance of elementary and secondary representation. However, ultimately

administrators needed to be willing to participate, and reasons for failure to respond may

have included those who refuse, lack the comfort or ability, time, or interest, or otherwise

become inaccessible. It was also hoped that the topic of equity and social justice warranted

interest from a sufficient number of participants who might have stronger literacy skills with disaggregated data as verified with the recruitment questionnaire. The complexity of the topic provided a rationale for a qualitative approach that aims at capturing the experiences of a set of school administrators in considerable depth.

## Selection of Interview Participants From Questionnaire Findings

Selection for interview participation required that the questionnaire respondent agreed to be contacted to discuss, to be interviewed, and—because the study focused on how administrators attend to disparities in their data—to answer affirmatively to the question: "Have you seen any differences between groups of students or subgroups in your school data? or Have you seen any differences between groups of students that may suggest inequitable conditions for some students?" Respondents also needed to indicate that they disaggregated or drilled-down data to look for between-group differences in order to be selected for an interview.

Based on participant preference and with consideration of questionnaire responses, 10 questionnaire respondents were selected to be interviewed for the second phase of this study (the next section describes some of the reasons for exclusion). It should be prefaced that it was difficult to find this population because those who took a strong stance toward equity ultimately numbered about the same as those who did see issues of inequity in their data—and recall that administrators who did not "see" inequities stated they disaggregated data for equitable purposes to the same degree as those who were later selected for interviews because they could give specific examples of data that revealed inequities – which then could be acted upon through targeted intervention. These findings suggest much work can be done to raise the profile using data for equitable purposes.

A number of respondents who agreed to participate and appeared similarly engaged to the overall set with respect to data use, provided some inconsistent feedback when asked whether there were observed differences in their data between-groups that might suggest inequitable conditions for some students. Respondents were excluded from interviews on the basis of their responses being incompatible with the goals of this study—that attending to variability in outcomes between subgroups of students is an important strategy in achieving more equitable outcomes. This vetting process excluded the few secondary administrators who showed interest in continuing and consequently the remaining participants represented the elementary panel only. The remaining 10 participants selected for interviews noted the following inequitable conditions reflected in their data when asked about differences between groups and inequities on the questionnaire. Administrators noted differences in many factors of well-being such as with anxiety measures, in student social and intellectual engagement measures, in learning skills, and in academic results. These differences were also observed across factors of sex and gender, across age and grade, between the overall group and Indigenous students, and between newcomers and ELL students as part of the immigrant group.

**Data Collection Strategy Using Semi-Structured Interviews**

This study considered the equitable leadership views and action from one group of school administrators from a GTA school board in Ontario. Potential interview participants were selected based on questionnaire response, although this factor became an insufficient condition for selection because virtually all questionnaire respondents indicated that they disaggregated or drilled-down data to look for between-group differences. On that basis, and based on participant interest, 10 questionnaire respondents were selected to be interviewed for Phase 2 of the study.

The semi-structured interviews were scheduled at the convenience of administrators once they indicated their preferred method of contact in the selection questionnaire. Interviews were planned to last approximately 90 minutes at a location convenient to the administrator. Administrators were asked a series of semi-structured probing questions in order to reach saturation on the topic (see Appendix B) to understand how they access, use, and respond to data for the equitable purposes by attending to disproportionality in their data. Although questions were created and refined in advance, they are semi-structured with respect to range of ideas, and open-ended in order to facilitate meaningful discussions.

Qualitative research methods included audio recording, transcribing, and the analyses of individual interviews. Audio recordings and transcriptions will be maintained for a period of 5 years and kept in a locked cabinet in a secure location determined in consultation with the dissertation supervisor. Transcribed text ensured that any possible identifying elements were redacted and pseudonyms used to fully hide the real names of participants. Member-check techniques of summative and transcribed text were provided to the administrators to ensure that the text is representative of what was discussed. Participant consent was sought in the recruitment questionnaire and was offered to all administrators in the board by direct email, coordinated by the board's research department after ethical approval was granted by both the Brock Research Ethics Board (Clearance #15-240) and the school district's Research Advisory Committee.

### Developing the Interview Questions

In keeping with the study's goal to research school administrator perceptions and experiences with data and data-informed decision-making, a large set of guiding

questions were developed that reflected the full range of possible topics to attain

saturation on disproportionality within complementary school climate and student voice

data. These questions were vetted by colleagues known to me in a full set of leadership

and research roles. The questions have been structured within a critical framework that

contends that disparities in outcome data need to be identified and responded to

systematically in order to make schools more inviting, equitable, and socially just in a

global way. The study also reveals how administrators work to achieve a measurable

reduction in disparities in achievement and school completion outcomes between social,

cultural, economic, linguistic, cultural, and asset- and skill- based groups.

Consideration in this study was given to the availability of data sets, analysis

tools, and systems relating to achievement, perceptual, demographic, and process data

may be considered in redressing inequity. Because all data arise as products of human

endeavour and because all data have inherent limitations, limitations of data were

considered with respect to categorical limitations of qualitative and quantitative types,

with respect to limitations of use and purpose (e.g., formative or summative data), and with

respect to limitations of temporality (i.e., leading versus lagging/trailing indicators). Further

consideration was given to the expectations for principal use of data as articulated in the

*School Effectiveness Framework* (SEF; Ministry of Education, 2013b) and the *Ontario*

*Leadership Framework* (OLF; Ontario Institute for Educational Leadership, 2013).

## Limitations

Since this study examines the perceptions and experiences of a small number of

administrators in a self-selected way, it is limited in scope. However, due to the selection

criteria this unique group of school administrators provide genuine insights and

understandings that provide new information on the differences in capacities, understandings, and interventions of attending to discrepancies in outcomes between groups—factors that are essential to measuring and responding to inequities in school. As a qualitative study of perceptions and experiences of small number of participants in a unique context, the findings may not be similar to administrator views or experiences in other contexts especially in regards to contexts using different measures or disaggregations.

## Restatement of the Problem

This study explores what is known about the changing accountability context and data use in schools in a school district that has been disaggregating data for equitable purposes for many years, and it opens a space for administrators to discuss the way they use data for equitable purposes; that is, to identify and respond to preventable differences in the outcomes of subgroups of students based on all information available to them. Despite mandates to improve schools, the historical focus of standardized testing has not kept pace with the complementary measures of school climate and student voice information. Data-savvy administrators reveal much about how attending to disproportionality is a viable, systematic approach to equitable school improvement and this study also reveals much about the assumptions that school leaders bring to equity work in schools.

**CHAPTER FOUR: FINDINGS**

This chapter presents the findings from both phases of this study. Questionnaire

data first are examined relative to how they illuminated on the research questions.

Participant demographics and variances in capacity and literacy are discussed first,

followed by a review of factors in the data that revealed incongruities and ideas of

"in/visibility" in data. The findings are presented sequentially in order to map the

contingencies of the research plan. The Interview phase of this study is described later.

The selection procedures are described in detail further down but they required principals

to have a stated commitment equity and to specifically name discrepant outcomes in their

data. The questionnaire informed the interview selection and led to noteworthy patterns

in how data are accessed and received by principals in sometimes self-limiting ways. The

themes of building relationships with and "getting to know" both students and "softer

data" revealed compassion and empathy and pointed at some ways to move beyond "gap-

gazing" and limitations derived from variances in data and equity literacy that became

visible. A synthesis of these ideas is placed within the broader context in chapter 6.

This study began by recruiting school principals in one Greater Toronto Area

(GTA) school board to explore their use of data for equitable purposes. A questionnaire

was developed to invite further participation in interviews. This chapter considers the

feedback from 57 school administrator questionnaire responses as well as from the

purposive sample of 10 school principals about their experiences and perceptions with

data and data-informed decision-making for equitable purposes. Principals were selected

for participation based on their interest and on their having awareness of inequitable

outcomes visible in their school climate, well-being, or other data available to them. The response to the questionnaire was relatively strong.

The idea was to find out how participants used data for equitable purposes, particularly contextual data that was asset-based using TTFM data that spoke to how different groups experienced schooling. Variances in achievement have been highlighted in the literature but scarcely anything has been written about variances in subgroups in antecedent conditions (e.g., safety and well-being) as well as corollary aspects of school (such as measures of engagement and advocacy at school) because these factors until recently have not been measured at the population level. To understand how principals considered contextual factors and strategies such as data disaggregation, administrators were selected for further participation from the recruitment questionnaire on the basis of their identifying that they noticed population differences that could be attended to in an inviting and intentional way. A number of principals were excluded from interviews because they either were not aware of discrepant outcomes or they did not acknowledge that the discrepancies were suggestive of inequities. This set showed low equity literacy inconsistent with the exploration. The rationale for exclusion is discussed in more detail later but participation required both interest and capacity as determined by the procedures outlined in this study's Methodology chapter.

Principals varied greatly in the skills and capacity with data use regardless of their experience, background, and stated stance toward valuing or being impacted by factors of equity. Data literacy is not something that is immediately evident in a conversation about data use for equitable purposes and further questioning and prompting during interviews was frequently required to be able to conclude with some certainty that the interviews

were pushing the envelope in terms of experience and knowledge on the topic. Although the questionnaire was intended to vet for particular qualities and techniques in data use, a majority of administrators (regardless of their stated stance and their indication on the questionnaire that they did so) were nonetheless unable to provide clear examples of how their disaggregated data guided interventions and this revealed significant opportunities for policy improvement, inconsistency in equity literacy, and also some useful strategies to redress inequity.

Anticipating variance in skills, the questionnaire vetted for the population that it was thought would be more likely to reveal equity work based on the data because awareness of the issues was high. The expectation was that some principals have limited access because of experience or know-how; the questionnaire and following dialogue was meant to explore ways to describe how they were getting to know their students and how they were connecting with the information from their students. The first gate through which potential participants were screened was the questionnaire that asked (in multiple ways) if there were noteworthy differences in subgroups of students, and a question was also asked to determine participant commitment to equity. The initial questionnaire allowed for the screening to take place, preparing the ground for further conversations with those who may have something to say about those differences, because as Gorski (2015) suggests, the recognition of inequity is the first step in working to redress it. Acknowledgement of differences in student outcomes is an important requirement for identifying the location of sites of social injustice since recognition is necessary in order to explore why there are differences. The questionnaire allowed for the filtering of administrators, to search for those who acknowledged on the most basic level that

differences exist and that those differences are the basis for potentially grave social inequities that need to be further explored in order to redress them. It would be impossible to explore behaviours of principals in the service of equity if they were blind to the presence of inequities in schools.

**Questionnaires for Recruitment and as Data Source**

Although details of inclusion rationale are detailed in the Methodology, it is important to outline here the ways in which respondents were grouped at this phase to describe the way the discussion subsequently unfolds. There were initially 57 administrators who completed the questionnaire, which represents about 25%-30% of all principals, which in turn suggests that interest in the topic was relatively high. The questionnaire served to both identify potential interview participants and to provide contextual data from the responding set. The recruitment questionnaire (Appendix A) was designed to capture information about data-informed decision-making for equitable purposes in the whole set of respondents and it was also designed to select participating principals. The questionnaire also provided a view of the variations in equity literacy. In order to be considered for an interview, respondents needed to answered affirmatively to the question: "Have you seen any differences between groups of students or subgroups in your school data?" or "Have you seen any differences between groups of students that may suggest inequitable conditions for some students?" These questions were part of an open text response item and respondents additionally needed to provide an example of inequity in their data (discrepancy) to be considered for an interview. Principals were selected intentionally when they gave examples in the responses that suggested a commitment with data to equity work. On that basis, and based on participant interest, 10

questionnaire respondents were selected to be interviewed for the second phase of the study. This latter group was conceptualized as the group of interest and they provided evidence of equity literacy through the questionnaire data. Gorski (2015) suggests that recognizing inequities is the first stage of developing equity literacy, which is a requirement for intervention and redress. Although conditions for participant selection were deliberate and controlled, this work revealed that some respondents who said they did the right things for the right reasons sometimes revealed ideas contradictory to the idea of equity altogether.

## Findings—Questionnaire Data

Findings from the questionnaire response data are considered first. However, although ultimately 10 participants were interviewed and their responses are considered with respect to the goals of the study, the study was not an exploration into the why's of how someone could deny that there were discrepancies between students (as some principals suggested) but rather of how the principals made contact with the data regarding the truth of inequity. Among the principals who answered in the affirmative to the question of seeing discrepancies and differences between groups, some denied that the differences they saw were related to social inequity. Respondents were therefore considered with respect to whether they saw or acknowledged inequity. While this was not an unexpected outcome initially, ultimately even some of those respondents who met the selection criteria for interviews could not speak with clarity about the relationship between gap-closing and reduction in discrepant outcomes and the implications for redressing inequity. To recap, all 57 questionnaire respondents indicated they disaggregated data and all interview participants stated they disaggregated data for

equitable purposes *and* explicitly stated they had a commitment to equity and could name specific discrepancies in outcome data (e.g., between newcomers and Canadian born populations, between boys and girls, etc.). Participants showed great variance in their understanding of the use of data for equitable purposes. This means that even those who could identify discrepant outcomes with a stated strong personal interest in equity—or those who stated they were personally affected by inequity—did not provide evidence that they had strategies in place to attend to and redress inequity.

### Variations in Equity Literacy Revealed

Factors revealing differences included: differences in interpretation about discrepant outcomes (e.g., recognizing the presence of a gender gap in some key places but either dismissing the issues as developmental or simply remaining unable to speak specifically about gender gaps in a way that suggested a feminist stance toward equity); differences in the extent to which differences were believed to be emblematic of inequity; differences in their commitment to asset-based and context-based variables suggestive of an opportunity gap; differences with respect to providing evidence of interventions in the support of equity; differences in focus (e.g., curricular emphasis and global focus on improvement versus attention to gaps in outcome variable); differences in working with the limitations of population data; and ultimately differences in concern about inequity. These observations suggest a noteworthy lack of consistency in access, use, and response to data in the service of equity.

While some respondents revealed positive strategies for leading for equitable purposes, the evidence in this study certainly raises important concerns about the need to develop knowledge, direction, and equity policies, particularly in light of the significant

multicultural presence in the GTA. While the Ministry has now given some direction in terms of measurement of discrepant outcomes, it is not clear from this study that administrators necessarily know what to do with that information. The evidence presented here also is suggestive of a need to continue to develop greater consistency and sophistication in order to build equity literacy and to teach that *equity is measurable*. There must be no question about the assumptions on which this study is predicated: social, cultural, economic bias must be understood within the context of a colonialism, racism, classism, and sexism with attention to power differentials and the forces of cultural reproduction. In other words, the opportunity to do the intervening work to close gaps in opportunity and achievement on purpose can arise only with the rejection of the idea that discrepancies in outcome are acceptable—that is, to redress inequity on purpose for purposes that can be defended. For as Alderson (2006) states, "we cannot expect vulnerable children and teenagers to create an environment that protects themselves. For that, it is us adults who must create, monitor, and sustain safe environments" (p. 168).

## Demographics of Questionnaire Respondents

The demographic questionnaire was provided to approximately 200 elementary and secondary principals and vice-principals who were directly emailed requesting their participation in the study. Although summary findings are presented here in relevant detail, summary charts derived from the questionnaire are provided fully in Appendix C. Altogether, 57 administrators completed the questionnaire; 25 were vice-principals and 32 were principals. Twenty respondents identified themselves as male and 37 identified themselves as female. Forty-four respondents were from the elementary panel and 12 respondents from the secondary panel, with one questionnaire respondent not identifying whether they were elementary or secondary. Sixty-eight percent of respondents identified

their school as being in a suburban location, 5% rural, and 26% urban. School population ranged from about 200 to about 2,000 students covering schools that had up to four administrators. Slightly more than half of the questionnaire respondents were principals (56%) and the rest were vice-principals. Ultimately, due to factors described later only principals proceeded to the interview stage. Four out of five respondents were from the elementary panel, and four of five were in the administrative role for fewer than 5 years, with only 12% responding they were in their current school for more than 5 years.

Clearly, there is a strong propensity to reposition administrators at least every 5 years, which may present some challenges in terms of seeing a leadership plan come fully to fruition. The administrators were relatively new to the role with slightly more than half of them (56%) having been in an administrative role for over 5 years. With respect to the education of the respondents, four in 10 had a research-based degree at the level of Master's and only four respondents had an advanced research-based degree at the Ed.D. or Ph.D. level. It was interesting, however, that over half (55%) had not completed any formal education (either courses toward degrees, certificates, or additional qualifications courses) in the past 10 years, suggesting that once in a leadership role there is a decline of the pursuit of educational opportunities. Almost 70% of respondents stated they worked in a suburban location. Administrators were asked to identify some characteristics about their population demographics and these estimates were consistent with the population characteristics of the region.

**Respondent Foci on Factors of Diversity**

In the responding set, principals identified a variety of factors of diversity that have either directly impacted their work, or that they experienced the effects of factors related to: ability, health, accessibility and accommodations (80% indicated this);

spirituality, religious beliefs (65%); Indigenous or First Nations populations (33%); gender and gender equity, identity, and expression (77%); SES and poverty (84%); race, ethnicity, anti-racism work and bias (73%); and immigrants and newcomers (61%). The next section describes what principals accessed, what they did with that information, and what they believed about what they saw.

### Data Accessed

Beyond demographic characteristics, the selection questionnaire asked about access, use, and sharing of data and information based on generated categories of data. Almost all administrators responding stated they directly access EQAO (standardized assessment) data (97%). Slightly fewer directly accessed achievement from report cards (95%), and achievement data from other standardized tools or teacher- or school-generated assessments (81%). All administrators indicated they directly accessed school climate and well-being data from the TTFM student surveys (100%), from teacher surveys (88%), and from parent surveys (81%). Use of demographic data (e.g., from student verification forms and internal data sources) was at 68%, from partner sources (e.g. with the Region and coterminous board) was 58%, with 61% of administrators indicating the use of staff learning data such as exit passes. Demographic data such as Statistics Canada information was used only by 18% of respondents.

These findings appear to coincide with the frequency with which the data sources are directly provided (e.g., EQAO provides reports to administrators at least annually and Statistics Canada is generally available only as sought out and then often in ways that do not readily align with school catchment areas). Importantly, this shows that principals have a rich set of data to inform their goals for school improvement. When asked which data sources were used to direct goals in their School Improvement Plans, the results (not

surprisingly) were similar to the way in which data were directly accessed. This finding would suggest that data that are not directly accessed are not likely to appear in School Improvement Plans for goal setting. Data use in discussions with Supervisory Officers or those sources shared with school staff were accessed in about the same ways as the other categories of access suggesting low variance in use for multiple purposes.

### What Disaggregations Received Attention

One of the main goals of the selection questionnaire was to identify the ways in which administrators disaggregated or drilled-down on data—the primary way in which one might become informed about disparities or gaps between groups or subgroups of students. The most frequent types of disaggregations occurred by grade (93%), by sex/gender (79%), and by special needs or IEP status (61%). About one-third considered English/French program status (i.e., Immersion versus standard program; 34%), almost one-third by immigrant or newcomer status (27%), and by First Nations or Indigenous status (only 4%). The latter finding was surprising given that 100% of administrators indicated the use of student TTFM surveys and one of the major reporting tools within that system provides comparative results for all items and domains for Indigenous Students. Clearly, despite the availability of data from students with Indigenous backgrounds, only one principal indicated that they use the information at all, suggesting availability while necessary is not sufficient for use.

### Incongruence Between Stated Values and Social Inequity

The focus of this study was to explore more deeply leadership for equitable purposes, and while the recruitment questionnaire was designed to isolate those with particular interests and habits, it also captured some baseline data from the larger pool of

administrators who either chose not to participate further or who did not meet the criteria

for participation. Some responses revealed large variance in beliefs that exist between

those who attend to equity deliberately and those who seemed to completely question the

need for attending to it. The questionnaire asked: "Have you seen any differences

between groups of students or subgroups in your school data?" and "Have you seen any

differences between groups of students that may suggest inequitable conditions for some

students?" Overall, 33 respondents provided open text response and the following themes

arose regarding differences in school data.

Based on the selection criteria only 10 of them continued to the interviews.

Broadly, principals identified discrepant outcomes between boys and girls in Math and

other gender gaps, identifying factors of well-being and achievement, noting attendance

patterns and decline in positive assets into the later grades (and increases in negative

factors such as anxiety and bullying). One respondent also noted their attention to issues

for Indigenous students, several noted differences between French and English programs

in dual track sites, and one other principal noted they saw consistent differences in the

performance of students tied to specific teachers suggesting assessment inequities. To the

understanding of principal acknowledgement of differences between groups of students

suggesting inequitable conditions, Glaser (2005) notes that "group-based inequities (i.e.,

disparities between racial, ethnic, gender, national origin, sexual orientation, and other

groups in access to resources, rights, and protections" have been well documented (p.

257). It is less clear that these realities have been successfully received by all leaders in

education. While perhaps risking being intrusive to the reader, it is truly challenging to

reconcile how one can claim to lead for equity and deny systematic bias; yet, here that

fact was partially revealed. It does not seem that one can logically hold such a stance and

still lead for equitable purposes (which begs the question of why they continued with the questionnaire after being presented with information that the purpose of the exploration was exploring using data for equitable purposes).

**Not Seeing, Not Believing, or Not Acknowledging Inequity**

Of the 57 administrators who chose to complete the questionnaire, almost one-fifth of them were questioning or unaware of issues of inequity when invited to provide examples. One principal responded: "Our school population does not have a lot of ethnic diversity and is disproportionately white Anglo Saxon" suggesting that homogeneity of population makes ideas of equity redundant. This statement or assessment of inequity being based on invisibility alone ignores invisible but important differences such as poverty or gender identity or sexual orientation. This obscures all the invisible differences—and even so, a diminished population does not imply a diminished need given the importance in education of attending to factors of diversity, power, and equity. Terrell and Lindsey (2008) call these types of equity issues "the elephant in the middle of the room that we pretend not to see" (p. 11). Some principals simply closed their eyes: "I have not looked closely at this so no I have not seen any differences" with another simply responding "not really" in response to the question, "have you seen any evidence that suggest inequity in your school?" *Not looking* was certainly a common theme in this set. One wrote: "We have not looked specifically at data for the purpose of identifying differences in groups or subgroups." Without a specific mandate to attend to discrepant outcomes these types of views are not likely to change. As Solomon and Palmer (2006) point out, some school personnel operate with "an uncritical habit of mind (including perceptions, attitudes, assumptions, and beliefs) that justifies inequity and exploitation by accepting the existing order of things as a given" (p. 205).

A few more principals responded that they observed some differences but did not seem to know what to do with that information or that the differences did not amount to inequity: "I also have collected data on newcomers and our junior/intermediate students, but haven't isolated the data specific to inequitable conditions" with another responding "Yes there are differences. Did not see differences that suggest inequitable conditions." Surprisingly, all of these administrators stated a strong commitment to equity and they selected a majority of the checkboxes when asked to respond to the following question: "Have any of the factors of diversity below directly impacted you or your work (that is, have you experienced the effects of—or devoted effort—to making a difference with the following)?"Not one respondent left this blank and there was no real variance in the data usage claims between those who stated they were attending to equity and those who either did not see or were ignoring inequity patterns in their data. Many administrators, it seems, have some awareness of social inequities but an inability or reluctance to either see them or name them as such. They seemed to understand what the "right" responses are; that is, they were supportive of social justice and equity in principle—they just thought they were there already. Good intentions without directions really do undermine progress. This disconnect observed in administrators' ability to identify factors and populations that revealed inequities suggests it would unlikely that inequity could be redressed in those locations regardless of stated commitment.

### Principals' Understanding of Discrepant Outcomes

Some administrators noted differences that were cohort related, that is, differences that were emphasized because the variance in a small sample is potentially larger than in the set. For example, "We have seen differences in cohorts and wonder at the implications. Was it the group of students? The teachers? The school climate?" Another

added that "There has been observable differences in TTFM data with respect to grades and gender. My personal opinion is that I would not attribute these differences to inequitable conditions, however, my team at school is still trying to identify why there may be differences between groups." The latter example reflects a lack of understanding about declining assets over time. This finding again seems consistent with Solomon and Palmer's (2006) notion of an "uncritical habit of mind" (p. 205) wholly detrimental to the redress of inequity in schools.

While a variety of reasons prevent principals from seeing inequity even in the presence of discrepancy, the solution here may be one of policy that directs certain types of explorations. While it may be obvious from some of the comments above that principals just do not know what to do with the information even if they want to (which cannot necessarily be assumed), one major issue is that inattention to equity does not directly affect their ability as principals to manage a school. Schools can be managed without attending to things like inequities. There are many pressing issues that may take centre stage. However, with a mandate time can be ostensibly carved out to make this issue a priority. It is not clear that in Ontario, principals need to meet any specific requirements in terms of equity literacy and in terms of data literacy, and that should probably change. Although, the Principal Qualification Program devotes a small domain to research and data use as well as to equity, many principals would certainly benefit from additional support in the use of data in the pursuit of equity.

**Implications of Poor Understanding of Inequity Visible in the Data**

Although there is evidence that some principals care tremendously about equity, there is a sense in these findings that care about equity is an insufficient condition for

meaningful use of data for equity improvement. Leadership actions for equitable purposes really ought to happen on purpose for purposes than can be defended, but sometimes they seem to happen only by chance. Ultimately, it is not the care about the concept of equity that matters, but rather that that students perceive that they are cared about. As Dweck, Walton, and Cohen (2011) put it: "the perception that teachers care about their students is among the strongest predictors of student performance" (p. 30).

Similarly, the importance of developing and valuing human relationships is a central feature of Invitational Education and consequently data use, while important to equity, needs to be refined within the development of high quality relationship rather than alongside them. There must be skills, easy access and availability of data, guidance, and direction. As evidenced earlier in the statements from principals *who did not see inequity*, it is not clear that having the data and an online tool to disaggregate findings by a vast set of variables with the TTFM tool that a majority of principals will do this with any efficacy. Yet when asked, principals all claimed a strong commitment to equity. A majority of the tools are in place to inform the redress of inequity in a variety of structured, evidence-based, reproducible ways but it appears that a mandate or policy is needed—one capable of standing in for gaps in ethical imperatives that and can be assistive with incentivizing the development of the requisite data and equity literacy skills. Without such a mandate there seems little chance that monitoring and responding to between and with group differences in outcomes will happen at all. Current policies miss the mark in raising achievement levels between and within groups and because they do not require attention to inequity in the school improvement process.

Access to tools to monitor well-being, for example, are easily accessible using measures that are stable over time and sensitive to between- and within-group

differences. In the board of study, a variety of tools have been made available to schools to probe and disaggregate dozens of school climate and well-being variables from TTFM surveys that have been in use for 7 years. Over that time, administrators received guidance, targeted learning, and data packages to build capacity with the data tools to allow for the requisite disaggregations to occur in order to measure differences in well-being and climate factors between groups. Nonetheless, the available tools were insufficient to predict that equity-focused work would happen, as evidenced in the questionnaire data. As such, the next section describes the purposive sample for interviews and moves toward a discussion of those findings.

## Findings: Use, Understanding, and Response

The present research inquiry investigated responses to the three broad questions as follows:

1. How do administrators conceptualize and update themselves with information and data about differences between populations in their school?

2. How do administrators use, understand, and interpret discrepant information to support judgments and determinations about direction and school needs?

3. How do administrators respond or what leadership actions do they take based on attending to differences in population data to redress inequities?

Before summarizing the findings from participant interviews, it is important to emphasize that this study was designed to intentionally probe the data use practices of school administrators who revealed through the recruitment questionnaire that they were attentive to and valued the specific goals of attending to gaps in achievement, climate, and well-being for known subgroups of students. The sample selection was therefore

purposive. While it was hoped that the selected sample of participants shared some unique features that inform the discussion as it pertains to attending to disparities in outcomes and therefore equity in schools, skill sets, staff, and school populations can vary tremendously and consequently the observations shared by school administrators might only be reflective of their context rather than of broader patterns and trends in general.

### Interview Selection and Reflection

Although not all administrators could be selected for the follow-up interviews, those who chose to respond to the questionnaire (Appendix B) were generally insightful with respect to what administrators believed. The questionnaire asked participants whether factors of diversity directly impacted them or their work, and whether they have seen any differences between groups of students or subgroups in their school data. They were also asked if they have seen differences between groups of students that may suggest inequitable conditions for some students. Based on the answers to these questions, the aim was to select participants who (a) provided evidence of discrepant outcomes in data, and (b) showed equity literacy. I argue that the two elements provide the necessary conjoined conditions to redress inequity in a structured, evidence-based, and reproducible way.

Respondents to the questionnaire were asked whether they would like to participate in a follow-up interview; 27 respondents declined further participation, nine indicated they would like to discuss further, and 20 agreed to an interview in the questionnaire. However, interview selection was designed to select respondents who met further criteria with respect to disparities in data as they pertained to subgroups of

students so this number was ultimately reduced to 10. Respondents who did not see or acknowledge inequities were therefore logically excluded.

Ultimately, I interviewed 10 participants but as the interviews progressed it was clear that despite having selection/exclusion criteria in place, there remained high variance in participant capacity with data use as well as with equity literacy. Although all participants were cooperative and hopeful regarding the effect of their data use on attending to inequity, a number of principals also demonstrated they were using data thinly and sometimes in ways that suggested misunderstanding about what was available to them or even about the relationship between discrepant outcomes and potential inequities. Several principals were not clear on what "gap-closing" was and this required some additional prompting about differences in outcomes between groups of students by appealing to the differences they had suggested in their questionnaires. Even with prompts some principals could respond only thinly, sometimes showing a lack of awareness of the relationship between narrowing gaps in outcomes and inequity.

Certainly, all of the principals applied their data to meet their needs; it just was not clear that data literacy or equity literacy were always high. This was very surprising to me given the selection criteria in place. Nonetheless, I had to accept the fact that in spite of their very good intentions, some of them did not really make good use of data in the service of equity at all. This may be an area of study in itself—exploring the barriers to equity literacy and data use. For the purpose of this study I simply relied more on those who used data and those who could speak to that. However, it is important to point out that while selection criteria were employed, not all interviews showed sophistication in redressing inequity in measurable or reproducible ways. Nonetheless, those interviews

are also discussed here in terms of what they revealed with respect to opportunities for direction and growth.

## Overview

The selection criteria used to proceed to Phase 2 of the study required participant agreement/interest and it required an open text response to the questions: Have you seen any differences between groups of students or subgroups in your school data? Have you seen any differences between groups of students that may suggest inequitable conditions for some students? The purpose of the latter requirement was to ensure that principals acknowledged and could identify specific sources of inequity. I was curious whether there were any noteworthy differences between those who elected to participate and met the selection criteria and the overall set, so I reviewed the demographic characteristics of the two groups. In all, 10 principals met the selection criteria and they varied from the set of overall questionnaire respondents in the following ways.

Interview participants were all in the elementary panel, versus 80% in the overall groups. About three-quarters of them had been in their own school for 3-4 years versus the overall set where 50% of respondents had been in their school for less than 3 years. The interview participants had more experience in their school. They also had more experience as a principal since nine of 10 had been in the role for over 5 years versus about half of the overall respondents. More experience in school might have influenced the greater awareness of inequity shown in the questionnaire. There were no noteworthy differences in the range of educational backgrounds between the two groups.

**Identified Discrepant Outcomes**

Prospective participants were asked two questions: Have you seen any differences between groups of students or subgroups in your school data? Have you seen any differences between groups of students that may suggest inequitable conditions for some students? These questions were used as a litmus test to identify those who would be able to speak of their schools in terms of inequity. The following was reported on the preliminary questionnaire by those who were then selected for an interview. It was the participants' ability to speak to differences about their student population that made them suitable for inclusion in the study. In total, there were 10 suitable participants: Helen, Tonya, Stuart, Kieran, Stephen, Thea, Tom, Linda, Michaella, and Nancy. This section provides an overview of each participant and what they explicitly stated were worthy of inclusion. The section outlines the responses they provided, and their suitability for advancing within the study (e.g., they saw differences and made links between those differences and inequity). Table 2 provides a summary of interview participants.

Helen, a principal of a rural GTA school of about 200 students, reported that "students with factors affecting their overall well-being (e.g., factors in their home lives) are challenged with school and academic engagement and have lower achievement levels." Helen also noted that "Indigenous students have lower academic engagement" and that "most students who have lower achievement in Math are female."

Tonya, a principal in a suburban middle-class GTA school of about 600 students, reported that "boys underperform in writing" and that she has noted that "French Immersion students have higher literacy scores."

Table 2

*List of Interview Participants*

| Pseudonym | In what type of area is your school? | Are you a [principal or vice-principal]: | What is the approximate enrollment at your school? |
|---|---|---|---|
| Helen | rural | Principal | 400 |
| Tonya | suburban | Principal | 600 |
| Stuart | urban | Principal | 575 |
| Kieran | suburban | Principal | 1,150 |
| Stephan | suburban | Principal | 450 |
| Thea* | suburban | Principal | 460 |
| Tom | suburban | Principal | 805 |
| Linda | urban | Principal | 400 |
| Michaella | suburban | Principal | 380 |
| Nancy | urban | Principal | 700 |

*Although initially indicating some potential information Thea's interview was not informative with respect to inequity but retained here because she provides a useful example of being unintentionally disinviting while believing she was being equitable.

Stuart is a principal in a suburban GTA school with about 575 students and he reported "differences between male and females in primary grades for literacy as well as FI and English differences."

Kieran is a principal in a diverse community school of about 1,150 students and she noted that "in Grade 6 we find school climate data to indicate more social problems or bullying among peers" and that "boys are not as engaged or successful in reading as girls."

Stephen, a principal in a dual track school, noted that "difference in performance by gender is definitely a pattern as well as differences in reported performance by English and French program."

Thea is a principal of a school in a suburban location with about 450 students. She noted that she has seen that "students who are in self-contained programs are less likely to participate in team sports/activities." She also noted that she has "collected data on newcomers and our junior/intermediate students but we haven't isolated the data specific to inequitable conditions [i.e., do you ever feel unwelcome due to gender, ethnocultural, socio-economic etc.]." The latter point revealed that although Thea was agreeable to an interview, she was not illuminating with respect to inequity.

Tom, a principal in a school of 805 students in an urban part of the GTA, noted there "is a clear discrepancy in results between gender in learning skills, especially self regulation." He also noted there "has been a low level of participation in sports among newcomer girls."

Linda is a principal of an urban school of 400 students. She noted that "as a school we have considered low SES, mental health concerns, and poor parent

engagement as factors that influence student opportunities and achievement compared to neighbouring FI schools."

Michaella is principal in a suburban GTA school of about 380 students. She noted "there has been a significant discrepancy between EQAO achievement scores for boys and girls particularly in reading and writing and discrepancies in attitudes towards reading by boys." She added that "we also see discrepancies between boys and girls report card Learning Skills in the area of self-regulation."

Nancy is principal of an urban school of about 700 students. She noted "we have seen differences in cohorts and wonder at the implications. Was it the group of students? The teachers? The school climate?"

To summarize, principals identified discrepancies in achievement and context for boys and girls in terms of factors of learning skills such a self-regulation, between French Immersion and English-track programs, and in several key context areas such as domains of well-being such as social engagement through isolating participation in schools and clubs. Only Linda identified discrepant outcomes between schools in the area of FI programs. While there were some factors identified here, they were not very diverse in terms of my own experiences with both the literature and what the available data suggested. I list these because it highlights the idea of the visibility of difference.

## Reflecting on the Response

At this stage of the research it became clear that not all was going as planned. I felt a sense of disappointment that some of the principals who I know had strong skills at recognizing and responding to discrepancy chose not to respond to the questionnaire. Of course, that is their right and there are many very good reasons for non-response. This is

the limitation of all human research; self selection bias is a factor we all need to contend with. I also had to consider the real possibility that some of the respondents may have responded not because they had a strong commitment or skills for redressing inequity with data but that perhaps they responded to be helpful. Principals were invited. Some who I knew do tap into TTFM and redress inequities did not take up the offer to join the study and this fact had to be respected. What this also importantly signalled is that the area of focus in the study is still very much a rarity. That is, it seems that the practice of using data to measure inequity and respond is less frequently occurring than I had hoped, despite the progress that has been made in the availability of tools to do so.

While I was aware of the various discrepancies in contextual, well-being, and asset-based factors in the system between boys and girls, between newcomers and the Canadian-born population, between the overall and the Indigenous population and so on in achievement and broader contextual factors, a number of principals focused only on achievement outcomes and then only referenced differences between boys and girls. This was surprising but I was optimistic that continuing the conversation through in-depth interviewing that I might find a greater recognition of discrepancy and response—or at least be able to probe the inequity conditions identified between boys and girls. In the latter case, probing questions about the discrepancy almost always retreated to a point about developmental differences rather than about inequity. Therefore, while I began by considering all 10 interview participants, the discussion narrows to about half of the respondents. The others are referenced only where it makes sense to do so because despite efforts to probe discrepancy more deeply based on the selection criteria, it was not always possible due to factors of lack of awareness or applicability by some principals.

**Overview of Administrators' Observations and Meaning-Making With Data**

Understanding how administrators conceptualize and update themselves with information and data about differences between populations in their school is key to building capacity in the use of data for equitable purposes. Of course, not looking at data (or not seeing it as relevant) obscures the opportunity to use the data for equitable purposes. The technique of this study was to isolate principal participants based in part on their sense of discrepant outcomes between groups, which allowed a look into some of the equity practices that might already be in place to respond to those differences in sub-population outcomes. In this section, I make the claim that principals showed great variance in the awareness of some of the trends in the data that have been visible to me as well as those that have been established in the literature. I provide a selection of some of those trends here to show that while sometimes awareness was low, principals did reveal awareness of some important trends and patterns in their broader data in factors beyond achievement. Such an awareness is essential to understanding how various groups or subgroups experience school differently and to understand if the actions taken to attend to those differences are equity-promoting.

A summary of the main observations follows below. Where there appears to be consistency with observations and patterns noted in the literature, these are noted with the appropriate reference. Several principals noted that assets decline over time. In general positive assets (e.g., sense of belonging) decline over the years and negative assets (e.g., risky behaviours) increase. This finding is consistent with Scales's (2005) finding that developmental assets decline over the middle school years. Other negative factors of student experience are similarly important where, for example, anxiety predicts school

noncompletion (Duchesne, Vitaro, Larose, & Tremblay, 2007). Several principals, namely those working in areas with higher newcomer populations, were aware from their data that newcomers showed lower levels of social engagement and lower sense of belonging than more established populations. Finn (1993) confirmed through the U.S. Department of Education's National Educational Longitudinal Study that school engagement and achievement were positively related. Archambault, Janosz, Morizot, and Pagani (2009) confirm the importance of positive social-emotional learning environment promises better adolescent achievement, and Motti-Stefanidi and Masten, (2013) and Willms and Tramonte (2015) suggest that for both immigrant and nonimmigrant youths, the relationship between school engagement and school success is bidirectional (i.e., achievement encourages engagement and engagement encourages achievement).

While principals did not reference the former examples from the literature, they did have the tools at their disposal to make similar observations based on their own data. One principal noted that less recent immigrants (in Canada >5 years) had higher levels of intellectual engagement than average, and several principals noted that self-regulation (a learning skill appearing on report cards) is consistently lower for boys than for girls until about grade 7. Principals who relied more heavily on data walls (i.e., individual student-level visual tracking documents to identify those above and below expected attainment) to guide their focus of their interventions noted that boys are lagging in early literacy skills. Two principals had Behavioural Resources Classes (BRCs) and noted that boys were over-represented in self-contained classes. One principal noted that boys were also over-represented in their gifted self-contained class. Due to the board improvement planning goals set out in the board of study it was well-understood by principals that

students with IEPs have a lower sense of belonging and higher anxiety and several

referenced their work to address this. Students who reported having a trusted caring adult

in their life consistently had a higher sense of belonging, felt more safe, and reported

lower anxiety (Scales, 2011). While there is certainly data literacy among principals

participating in the study as evidenced by questionnaires and the interviews, this has not

necessarily translated into an articulated effort to redress inequities where they are

observed. These findings demonstrate that in this district, attention has shifted to include

factors related to how students experience, such that attending to discrepant outcomes

between student experiences becomes possible. Having described the key patterns that

principals noticed, it is important to be cautious about generalizing these findings to

groups, as an indicator of the global state of affairs. Affairs change and the point is not only

to note the differences but to address them where it makes sense to do so.

### A Caution About Attribution

While the previous section revealed broader patterns in population characteristics

as reported by principals, I wish to emphasize that one should be cautious about

attributing characteristics to groups that can be unfavourable or deficit reinforcing.

Therefore, they should be considered only within the broader context and holding student

assets in view rather than as absolutes pertaining to groups so as to avoid negatively

stereotyping. Consider that four Early Development Instrument (EDI) cycles over 12

years in the province revealed that ELL students had higher rates of vulnerability than the

average in the Language and Cognitive development domain, but in Cycle 5 that was not

the case. That is, based on four cycles of EDI collection, one might attribute lower rates

of cognitive vulnerabilities to newcomer language skills as a universal state of affairs. It

stands to reason that there is no a priori characteristic that should be applied to groups generally because such assumptions are risky and potentially detrimental. Reasons for the change are still to be considered although Li, D'Angiulli, and Kendall (2007) have questioned the cultural appropriateness of the instrument in culturally and linguistically diverse backgrounds. The finding is mentioned here to illustrate that while understanding variation between groups is essential to redressing inequity, caution must be taken in generalizing claims about ELL learners' (or about any group's) vulnerability because there is in ongoing risk of being incorrect at best and deficit reinforcing and detrimental to the group at worst.

## Achievement Versus Success

What seems special about the school administrators who try to lead for equitable purposes is that their stance seemed to de-emphasize the focus on achievement, particularly standardized achievement measures, and they had in view rich and deep understandings of the contextual factors affecting their students. That is, principals who in the questionnaire identified discrepant outcomes that focused primarily on achievement were less likely to present evidence of a sophisticated effort happening to redress inequity (e.g., they noted underachievement in boys' literacy in the early years compared with girls). A focus on achievement tended to displace knowledge of variations in how students experienced school. Beyond merely focusing on achievement, administrators who had a strong focus on equity knew that context mattered because there was clear evidence of attention being paid to broader contextual, asset-based, and well-being data being collected such as the information from TTFM. They shared information about their own experiences and they could use their own experience as a

lens or filter to try to understand the experiences of others. There seemed to be a connection between principals having had experiences that impacted them that potentially contributed to their greater sensitivity to this kind of knowledge. These administrators also understood there was much more to positive student outcome than high standardized achievement. They knew, for example, that in order to reach kids who were less successful, the kids needed a way in—an opportunity to become more engaged socially and intellectually. One might logically ask: how does joining a school team or club contribute to higher achievement? The answer is likely that on its own it probably does not, but it does increase the opportunity for social connectedness with peers and it exposes a student to another trusting and caring adult with whom they might develop a relationship and relationships are known to be highly protective against many risk factors. Invitational Education research and Developmental Assets research tells us about the protective power of social relationships so any opportunity to increase these connections for students should be seen as a good thing. It was unclear, however, whether a majority of principals emphasized this.

The next section discusses themes and introduces participants sequentially within the context of the discussion.

### Noticing Differences and Building Relationships

Although the guiding interview questions were centred around principal access, use, and response to discrepancies in outcomes between groups in the aim of redressing equity, several principals referred to their own interest in equity in providing a rationale for their commitment to it. Helen, a principal of a rural GTA school, shared the following:

I keep my mum's picture up there. My story is that we were political refugees.

We were sent to Northern Ontario. To try to get to know the expectations of

society and Canadian cultural my parents heavily relied on the school. I was that

kid who didn't speak English. Who didn't have friends. Didn't see other brown

faces and who's parents really turned to and really wanted conversations with the

teacher and the principal and to try to learn from them. The school was actually

for them a social institution that taught them what was needed for upward

mobility, you know, what was needed for social development in their kids. I guess

it's just me.

While the diversity of interview participants was wide ranging in terms of factors of race,

sex, and experiences, strong evidence of explicit commitments to equity in their work

was most visible when principals connected their work to their own stories. Helen's own

experience of seeing herself as other, she explained, was connected to her effort to pay

attention to differences.

Helen self-identifies as racialized. She works in a rural school with a population

of about 400 kids and she was transferred to the school at the beginning of the previous

school year. Most of the students are bussed in and there is a mix of families who are

agriculturally based and those who commute to Toronto for work. The school has

socioeconomic diversity but little racial diversity. There are no students who have self-

identified as Indigenous. Despite the stated lack of visible diversity there has nonetheless

been a specific effort to attend to disparities based on access to resources and

socioeconomic considerations in her school. Upon arriving, Helen noted she expected a

good deal of homogeneity in the rural school in terms of cultural diversity but what she

did not expect was the variance in access to resources, differences in ability, and

socioeconomic diversity she found. Although not immediately visible there was actually great variation in population.

Helen's school is located in a rural area of the region and many of the students attending had responsibilities on the family property or farm that required a different approach than perhaps those communities with a vast majority of immigrant students. In the former example, the discrepant outcomes were typically seen between those students coming from more agriculture-oriented families versus those who lived in the area but were commuters into downtown for work purposes. As discussed later, while schools with very high immigrant populations revealed some significant differences between newcomers and more established first of second generation families it was no less the case that redressing equity operated with less immediately visible consideration here. She notices differences and makes an intentional attempt at building relationships.

In some ways, Linda's school is like Helen's in terms of its historical agriculture-oriented roots. But that is changing. Linda's school is located in a densely populated suburban part of the GTA. The school has a population of 500 kids and is surrounded by French Immersion (FI) schools, which means any self-selection benefits of program choice by parents is felt in her school because FI is not offered there; they have a breakfast and hot food program, they have food bank support that continues to feed families over the weekend, community programs like Big Brothers and Sisters, and literacy programs. Linda comes from a lower working-class background which she suggested helps her relate be helpful to those kids "who need us". Linda's community is fast-growing with an increasing number of newcomer families. Linda described working with her staff to make the school more inviting. Linda sees the differences, and this section describes how she decided to build relationships.

Linda arranged it so that staff would get a sense of precisely where in the community their students came from. Linda suggested this might build empathy so she organized a bus tour of the school catchment area on one of the first PD Days at the school. When asked how the bus tour of the neighbourhood was received, she said it was received positively but that some staff commented that it was very eye-opening to see what a huge disparity in affluence in the school catchment: multi-million dollar homes to the northwest and subsidized housing in the east. After seeing the differences in need, she noted that:

> The feedback from the staff is really interesting. We have so many kids that come in late that are walking from [some distance] with no parent supervision. When they get to class and they've missed half of Language rather than say, "You're late, get moving," they [staff] now say, "Good morning, good to see you. Did you want a juice box?" She added: "That was their [staff's] a-ha moment: the kid's probably not had a good start to the day so now their first introduction at school is not someone snapping at them because they're late and they've messed things up. Staff is more and more aware of that, I think, and more sensitive than maybe in other buildings, because of the needs of the kids. (Linda, principal of a suburban GTA school)

Linda may say that teachers are more aware because of the "needs of the kids" but in reality, it was her. It was her reaching to connect the teachers to their students that made this shift. The kids needs did not change it was the intentionality of her response.

Kieran is a principal of a school that has a Behaviour Resource Class (BRC), a large cluster of students with special education needs that serves about 1,200 kids.

Students of Middle-Eastern and South Asian family backgrounds are the largest demographic with a smaller proportion of Afro-Caribbean and Latin American families and a few Indigenous students known through self-identification. Boys outnumber girls in the behaviour resources class significantly. Approximately 25% are newcomers to the country and about 50% are second generation immigrants. The area was historically a culturally homogeneous farming community and they "really struggle with the diversity" said Kieran. Kieran noticed that the parent population struggles with the changes and difference they notice. It is a compounded issue to address not only the students' differences but parent perceptions too. She continued, stating that "[parents] don't have the language to talk about [diversity] respectfully." That, Kieran noted, has created some challenges in terms of ensuring that efforts to be inviting to the newcomer population while simultaneously ensuring that the Canadian-born population felt equally invited. She stated: "We try to honour those perceptions and build the relationships" but indicated more work needs to be done. She noted that she faced "cultural resistance" in the attempt to use inclusive language around the holidays referencing a "backlash" from several Canadian-born parents in her use of "Happy Holidays" in a school newsletter over the phrase "Merry Christmas." I was left with a sense that this tension was not wholly resolved but Kieran's open stance may be the first step in resolving these tensions when she suggested "we try to honour those perceptions and build the relationships."

Tom is a principal in a suburban K-8 school with 800 students in a part of the GTA in which many first and second generation minoritized families have settled. The school has much cultural and ethnic as well as socioeconomic diversity. He stated that about two-thirds of the population is stable with the rest being transient; the school has

about 10 new registrations each month and about 10-12 demits. Many of his students come from multi-family shared dwellings where sometimes eight kids share the same address. Tom's background as an anglo-Canadian-born individual is not like the backgrounds of the majority of his students who are of South Asian background. For Tom, this difference meant he had to do a lot learning about and with his community and he stated he focused his effort on building relationships and trust. He has done so by offering incentives to his students to encourage families to come out to school events. In this way Tom is emphasizing the importance of parent and community engagement to school events by increasing community presence in student-led events such as the science fair, BBQs, and curriculum nights. Through promotion and incentives, he has been able to increase attendance at events from "perhaps 10%-15% of families to over 50%." He added: "I can't do much to engage families and students if they're not showing up."

Helen discussed the importance of personal relationships to her own success in this way:

> These little kids, despite whether their family has a happy environment, a supportive environment or not, I play a big part, a lot of power influencing their success, right? I take that pretty seriously. I think I'm overly passionate sometimes about the importance of that. For me it was people along the way that kind of helped me. I think it was resilience that was developed, you know, I had drive but definitely people that I met and educators and friends that helped get me through a lot of the barriers and be able to be successful.

Similarly, Kieran discussed how her beliefs were influenced by her experiences:

> When you talk about why did people get into these entry points, I think partly for

administrators, I think you lead based from your lived experience, right? Like I

was a kid who grew up with a learning disability who is told I would be nothing

and would never graduate from high school. I became expert at teaching reading.

That is a big part of why you see this. I couldn't learn to read so I figured out how

to teach kids to read and now I want my entire school to teach kids to read.

Kieran has faced some challenges with her own child:

CPS [Collaborative Problem Solving] works for my daughter. Like I said, once

you know how it relates to your own kids, if you've got a chance to use that, you

see the power in what it can do. I mean it's changed my daughter's life. Most

people would look at her now and never ever see she has an anxiety disorder.

Most of the teachers say she doesn't have anxiety. I want all my kids in the

behavior class to benefit from that nudge, right? I think sometimes what you're

driven and how you stumble is based on those experiences, right?

CPS is a transactional problem-solving based on the work of Greene and Ablon

(2005) that takes the position that when students are unsuccessful the reason has less to

do with not wanting to do well but rather to do with lagging skills that can be discreetly

improved. It is an approach that like invitational approaches can improve the quality of

relationships tremendously. These relationships are the intervention.

## Using Data to Get to Know Students

Helen referenced that she puts together a data binder and identified that she

usually starts with the trailing/lagging data sources such as EQAO. She noted that one of

the shortcomings of EQAO is that because by the time results arrive, the kids have moved

on in many cases. In other cases, Helen stated that certain pieces are necessary because

the Superintendent will be looking for them: "I follow the expectations that our superintendent or our board would ask us, so I rely on the data sources that are kind of traditional. I would, you know, look at your EQAO, looking at your *Tell Them From Me*, and some of those regular used tools." Helen also considers data with respect to developmental assets and she is seeking her own method to seek clarity within the data when she stated she drew upon assets like the power of relationships and equity of access to technology as a focus for her school.

Linda uses all the "comparative data" as she calls it: "Report cards, EQAO, commercial reading assessments. We also look at attendance and disciplinary data." Linda also monitors library data: "who checks out the most books, who's not checking out books." Like Helen, Linda uses a data wall that tracks kids by grade and achievement and considers the location, clustering of students, and outliers to identify student who need closer monitoring:

> I would be able to pick a child particularly one below grade expectation and I'd
> be able to tell you their story. Why are they here? What's the plan to get them
> moving forward? Is there any assessment data on the student? Are they new to the
> country? There isn't a student below level that I can't tell you the story. That's
> one of my big data pieces.

This is Linda's personal strategy for dealing with and knowing her students.

Tom uses all the widely available data but he is also skilled at using the data warehouse (a database that serves as a repository of primarily achievement and learning skills data) to explore more deeply. While the data warehouse historically has been available to all school leaders, it has mostly remained in strong use with the research

department because it has not always been the most user-friendly tool. He notes that

EQAO and reporting data is used but EQAO is lagging and only available for the grade 3

and grade 6 cohorts. Tom, like Linda, accesses the data relying on his own techniques

and approaches to the data and he prefer to rely on report cards data. Recall that Tom

identified gaps in achievement between boy and girls and when asked why he thought the

differences were there, he responded as follows:

> Why is there a gap between performance in boys under-achieving or under-
>
> performing compared to girls in this learning skills kinds of things? We examine
>
> where the assessment is coming from—so sitting still on the carpet. The teachers
>
> are confusing compliance with behaviour and so we're working towards changing
>
> that model of how we teach.

### Limitations of Standardized Achievement Data Like EQAO

In discussing the data sources that they use, administrators also discussed the

limitations of information and in most cases offered their feelings about it without

prompting. One common challenge identified was that standardized assessments, like

EQAO, are a lagging assessment of skills, directing insight into last year's students who

have since moved to the next grade but interventions to the same grade assessed.

Tom suggested the community reacts to school rankings. As Tom put it, he often

fields calls from parents asking things like, "I'm thinking about moving into your area

but I noticed on the Fraser report, you're not the top school anymore." Tom noted that

there "were 1 or 2 years that we were in the top 3 or 4." Asked why there was a decline,

Tom cited "cohort effects," adding "I can tell you this year my grade 6 [students] will not

do well; it's a cohort. I can't argue that point." Tom continued noting that one can say

"you can do all the things" and that "they're great teachers [because] I know the work they've done." But Tom went on to say that there is value added from grade 3 to grade 6, that is, the same cohorts show growth over time but "they're still not going to do well so I am going to rank middle of the middle probably in that way" [because the rankings do not take cohort tracking improvement into account]. Tom alluded to the broader context variable when he referenced the narrow metric of EQAO assessments:

It's one aspect and that's basically math and language snapshot piece—if you rank us on other aspects, if you take our report cards, learning skills, that kind of stuff, and consider student engagement, student involvement, and add the metrics for that, I would rank us in the top.

This suggested that while Tom did not disaggregate well-being, climate, and context data he was attentive to its presence and the overall result.

Linda, like Tom, offered that "EQAO I find sometime is just too sweeping." Then she added that "we make a sweeping goal, but who, who needs that? Where's the kid? I want it drilled down in the classroom school level." Linda's point is that EQAO data may only be providing Math and Language information for two elementary grades and that it lacks the granularity to reflect the achievement and growth in the whole school, but that that is the measure that is used to do that. She added that: "in my experience, when I've had someone from research or had someone come out and work directly with staff, we've pulled our classes' data … that's when the work is more meaningful." Linda, like Tom, has strong criticism of EQAO assessments. She noted there were negative effects of lower EQAO results in her school on morale and in terms of public perception. On more than one occasion she too, like Tom, has received inquiries from parents who were

considering buying a home in the neighbourhood and were reaching out to try to understand why the school results were "so low." Tom also noted "a lack of trust in the intent of the test. I believe … it is used politically." Critiques may be warranted but if principals are not able to trust any discrepant outcomes visible in EQAO assessments because they question the measure altogether (rather than receive it with its limitations), it will be difficult to redress equity in this regard.

Rating and ranking of schools comes from the Fraser Institute who rank Ontario schools on a scale from "best" to "worst" based on an ad hoc methodology based primarily on EQAO scores to suggest the "quality" of schools by assigning a school score out of 10. Discussions with both Tom and Linda revealed a sense that the rankings were unfair. Both Tom and Linda noted that it was peculiar that suggestions of quality in the rating and ranking of schools is done without ever having stepped in them and that it is done with minimal attention to demographics. It is done without attention to teaching and learning that occurs apart from the pencil and paper EQAO assessment. One might usefully ask: In what ways can these scores reflect the complexity of neighbourhoods, schools, students, or teachers? There is some evidence to suggest that those in the pursuit of prestige in rankings may actually do more harm than good in terms of quality of education because of the negative effects of "teaching to the test" (e.g., Popham, 2001).

It is important to remember that ranking based on EQAO analysis alone can tell us nothing about the quality of programs, the quality of relationships, levels of student engagement, sense of belonging, or supports and opportunities available—those factors to do with safety and well-being, inclusivity, equity, as well as achievement. Here too, as with provincial policies that still broadly favour achievement over antecedent well-being,

climate, and asset-based factors, a singular focus misses much in terms of context and needs that more truly contribute to making schools more inviting and more successful. Many boards in the province therefore started to use more sophisticated measures to deepen understanding of all of those factors relating to achievement and well-being and school climate with a focus on continuous improvement and reducing gaps in performance and experience where they may exist. In this regard, there is a distinct need to be able to ask and answer questions about whether there are patterns in all data that reveal differences in outcomes between groups which is predicated on the right data existing and on antecedent and corollary factors to be attended to prior to the focus on achievement.

What has been happening with the focus on achievement—which remains at the forefront of parents' concerns—is a neglect of the many contextual factors contributing with a plan to get there. Close attention to social, cultural, and discrepant outcomes in asset-based patterns of the experiences of schooling can provide the information required to ensure that students are engaged and more likely to take up the offer of schooling. That is, attaining the goals of higher achievement for all must attend to non-academic factors on purpose for purposes that can be defended and that the goals of achievement and student well-being, assets, and context factors are inherently linked.

The educative purpose of assessment is to identify and set direction for growth both for students and for our schools. That is why boards develop multi-year strategic plans and board improvement plans, and why schools develop school improvement plans. These plans require recurring reviews, needs-assessments, goal setting, monitoring, and alignment of actions and interventions to ensure goals are being met. However, if boards

have no mandate to measure outcomes that go well beyond achievement and make that information public, there is nothing else for the organization and the public to hang onto when it comes to making judgments about school quality. As for public perception issues, when one uses a singular and potentially flawed metric it is therefore no surprise that one might make erroneous or simplistic conclusions (or in Linda's case have to field inquiries about the quality of the school or from realtors trying to promote the sale of a home).

As Linda and I discussed the singular focus on EQAO achievement, Linda was able to quickly reference some data that reflected the current cohort of students and she noted the following findings from her school. She showed that in terms of social engagement, participation in sports and clubs was well above the Canadian average (83% vs. 68% in sport; 69% vs. 49% in clubs). Positive teacher and student relations were about the Canadian average and positive behaviours were slightly higher at her school than average. She also noted that at her school, 81% of students report being highly interested and motivated—well above the Canadian average (61%), suggesting strong levels of intellectual engagement as well. Of course, none of these factors were reflected in the rankings produced by the Fraser Institute, and therefore not available to the general public. When asked whether her community was aware of these positive characteristics of her school, Linda responded that her staff and parents would be aware of the strengths as well as the areas for growth through the School Improvement Plan which is posted on the school website although she noted she felt that is was rarely accessed.

**Use of "Softer" Well-Being and Climate Data: The Importance of Opportunity Gaps**

Administrators are looking for ways to see the students more holistically and the interviews suggested some variance in the degree to which they relied on TTFM

indicators as well as their intuition and experiences and the ways they came to know people to figure out very important details or clues about kids and families. For example, Tom used the example of a bounced cheque, triggering their awareness of a family who may be struggling financially. Helen talked about what she called *soft data*: "There is the student achievement piece but there's also these soft, I would say, kind of factors that influence how a school runs and feels. The climate, the culture of it." Helen described informing herself about the community when she arrived: "when I came to [redacted] I also wanted to understand the demographic so for me that was taking a drive, visiting the school, visiting the classrooms." She added that she was looking for things like the "diversity" asking "Is there anything that could give me evidence around socioeconomic needs? Around heritage needs? Around size of family? Or any barriers to learning?" She mused that "perhaps parents value traditions" that she needed to learn about. She also wondered whether "these massive properties and gardens" in her community and whether that was "indicative of things that they value and prioritize?"

Helen talked about deepening understanding about context: "Okay, what do we know about the family? Have they been multi-generational farm owners and what is their experience with school? What's mum's highest level of education? How do they perceive the school? Are we partners?"

Tonya, like Helen, referenced "soft data":

The soft data that's available in EQAO like do our kids like writing? Are they engaged in their learning? How do they feel about themselves in a classroom? Are they good at something? To me, that is meaningful data for me. Because that gives me a quick snapshot of what's happening in my school from the emotional

perspective, which I think is the foundation of being able to grow intellectually. You have to be able to be in a good place emotionally, or you can't even receive any teaching of the day.

Linda stated she values "anecdotal data" but is less likely to use it for school improvement planning. Sometimes anecdotes "gets watered down and it's just a whole bunch of artifacts that get thrown out there and doesn't necessarily help us [make judgments]." Importantly, however, students are carefully monitored in her building: "They're either at grade level or they have a comprehensive plan that explains why they are not and I know what the plan is." Although Linda acknowledges that achievement data will always be important, she stated "I always say to my staff that the lowest level of discussion around data is achievement level—that to me is the lowest—it's the context that matters." Linda's valuing of contextual, well-being, climate, and experiential data is an important factor in taking an asset-based and inviting approach.

Tom has focused his efforts on increasing parental and community engagement by providing incentives to kids for coming out to BBQs and curriculum nights. Through promotion and incentives he has been able to increase attendance at events form perhaps 10%-15% of families to over 50%. "Yeah. I can't do much to engage families and students if they're not showing up." Once they show up, he always has workstations set up for parents to complete the TTFM survey but for some newcomers, he adds, there is still a reservation or distrust about completing official looking forms or questionnaires. The parent TTFM survey is an important aspect of monitoring not only factors of bullying (as distinctly reported by parents apart from the separate reports from the student survey) but also with respect to factors of exclusion and these "softer" forms of data (i.e.,

self-report beyond achievement metrics) provide very important contextual about student experiences of school. The survey asks parents whether in the past 4 weeks their child has felt excluded for any of the following reasons: appearance, grades or marks (either low or high marks), family's level of income, sexual orientation, skin colour, ethnic or cultural background, religion or faith, disability, Indigenous background (First Nation, Métis, Inuit), language background (i.e., your child's first language), or other reasons that can be typed into an open text box. For Tom, the data provided from these findings sets the agenda for interventions and programs that can highlight modes of diversity and guide the work of building inclusivity and when asked to provide examples of Tom stated:

> It's true for most of the learning skills and the under-performance of boys there; there's a strong correlation between N's and S's in learning skills and lower marks to the point where as a layman I'd be comfortable saying there's causation, right? If a child can't self-regulate, i.e., look after one's own behaviour, how can they manage to do the work that's required of in the way we teach?

Like Helen, Tom also tracks bounced cheques because these factors allow those in the school to understand who might use additional resources or assistance with funding school excursions, access to technology, and to provide a rationale for funding snack and breakfast programs. Another very important factor, Tom suggested, is attendance, which he said they track very carefully. He stated, "the attendance data is a huge [source of data] that we use—and that matters to achievement because performance requires presence." The importance of attendance is emphasized by Tom and it is similarly identified as key in the literature (Sheldon, 2007).

Like Tom, Kieran has placed considerable emphasis on attendance patterns in her

school. She noticed that particularly newcomer families have some consistently poor attendance patterns some of them due to long absences when families would return to their home country part way through the year and some due to anxiety. She stated she had moms coming in saying, "But I'm a little bit anxious about or I'm worried about safety." Kieran worked to build relationships with those families by asking "What can we do to help?" She worked to emphasize the importance of being present at school and this alone she said made a difference: "We feel good about outcomes because we have most of the families except for the one all agreeing to a plan to keep their kids in school till the end of June."

Although schools have historically focused narrowly on academic achievement, Tom says "academics don't bind a school" so he suggests we need to "set goals set for things like environmental, arts, sports, well-being, where the whole school is on board." Like Tom and Helen, Tonya has also termed some of the important data as being "soft data." While the achievement focus of EQAO assessments is obvious, she stated that she was more interested in questions like: "Do our kids like writing? Are they engaged in their learning? How do they feel about themselves in a classroom? Are they good at something? To me, that is meaningful data." Tonya added that knowing those [non-academic] factors gave deeper context from an "emotional perspective—which I think is the foundation of being able to grow intellectually." The antecedent and corollaries to learning are essential, she suggested, because "you have to be able to be in a good place emotionally, or you can't even receive any teaching of the day." Awareness of the importance of contextual and experiential data seemed high and principals were seeking more meaningful connections with students. However, it was not clear that they had a

roadmap to show how to connect the large amount of data out there (e.g., TTFM) and instead principals are trying to find their own way. These conversations show that principals want to have this kind of connection but there are barriers that are subsequently discussed.

On numerous occasions, administrators in this study discussed specifically how a teacher's focus on curriculum can miss the context, antecedents, and non-academic student needs. Information about students can be so much richer than data about student achievement. Student achievement data (EQAO, for example) when solely used as a measure of success is like using the success of a surgical operation as a measure of health. There are, undoubtedly, correlations between whether a person survived or even thrived after a surgical procedure, but without exploring what else is happening, the information is too thin to provide much more than the evidence of outcomes and the story of the why—the essential understanding for interventions to have effect—is easily missed. Administrators expressed that there are issues that need to be reckoned with before curriculum can be tackled, and that by their estimation there appears to be more acknowledgement of things that students come to school with—needs that must be attended to before curriculum learning can occur.

Helen offered that sometimes "a child is lacking in skills and I don't know how to get them through this curriculum and I'm ready to move on." Helen's sense seemed to be that teachers are curriculum driven in this regard and consequently the factors beyond achievement are more narrowly considered. She suggested that teachers will recognize there is a challenge and they will start to request things like IEPs or extra support, like an educational assistant, so that the child can then access the curriculum better. She

suggested the order is sometimes wrong, that teachers are "juggling the pieces of trying to get through curriculum and then try to meet all the learning needs of the children."

Kieran added that it is a challenge to move away from an academic-oriented model to school improvement: "I would say social and emotional, theme mental health is a big challenge. The kids that we can't move or we don't move on well, when it comes right down to it are the kids that have mental health needs or social and emotional needs that are getting in the way of their learning." She stated that those are much more challenging problems to solve but she is finding that with kids who are struggling, capacity to address the academic side is high while capacity to address social and emotional needs is low. Helen added: "What I'm trying to do is get them to think a little bit beyond that the child's just not performing in terms of product or in terms of responding to the curriculum and take a sort behind the scenes look at what's actually driving that barrier, their lack of being able to access the learning." Helen says this can often be misread when teachers state:

> "Well I've tried all this in the classroom. The child is not responding. I sent them home and they're not doing anything that I ask them to do." There's that perspective of lack of cooperation that could be seen as a willful disregard of their efforts here at school.

Nancy reports her school is one with a lot of challenges. They have consistently had low EQAO scores and teachers have been very frustrated with the lack of academic movement. Most of the kids are from lower SES and the neighbourhood schools receive the kids opting for FI. She also notes that in the community the school has a reputation of being low quality. Nancy noted that the needs in the school are very palpable as she

recounted a recent excursion where kids were receiving group instruction at a ski facility: "one of the ski instructors came over to me and she said, 'Is this a school for kids with special needs?' The ski instructor stated that the students could not follow the instructions." Nancy was taken aback but conceded: "I know what you mean in terms of where they are at—but no, these are not students with special education needs." Nancy clarified that it was her sense that the conditions and experiences of students living in extreme poverty can present in ways that are palpable even for those unfamiliar with the kids before them.

Nancy noted the effects of poverty are extremely challenging. She teaches in a school with a disproportionately high population of students from very low socioeconomic backgrounds. When asked about moving teachers beyond a purely curricular focus, Nancy described her efforts at engaging teachers in Eric Jensen's (2009) *Teaching With Poverty in Mind*, but that she "couldn't really get the teachers to engage with the book despite [her] best efforts: I could not and the book's fantastic—the book's fantastic" because "it points out everything that we're seeing in our learners and says, 'Stop blaming them. This is what they live and when you live in poverty, this is the effect on you.' Very clear language." For Nancy, taking an asset-based stance, one that embraced gaps in social skills, or achievement, and reconsidering them as lagging skills and therefore teaching opportunities was a strong counterpoint to the deficit stance that might otherwise focus on what her students did not "bring to the table."

### Lagging Skills Through a Compassionate Lens

Compassion and empathy were visible values that emerged from administrators and in many cases directly drove which data were emphasized and valued. Where

administrators appeared apathetic about the meaning of the data it became less likely to be used. However, when data and information connected directly with something the administrators felt strongly about, the information was used to support a rationale for the implementation of programs or services. Seeing gaps in student well-being and skills were again seen specifically as a teaching opportunity rather than for having as being deficits. Some administrators evoked empathy without prompting and without guiding questions as the basis for their work. Helen stated that she values empathy and that "[she] thinks that a component of education is that we have to be compassionate and work through those barriers that families and children have to make education accessible to them." She continued:

> I always have the lens of structures that we put in place, like school team meetings, or problem solving a student need for example, that teachers will come prepared to share their observations. I see that as data. I ask. I provide a framework for their presentations and I ask for assets and lagging skills as well—I want to know what the children are showing you that they can do and what strategies they're responding to because that's a starting place when we're problem solving.

Some principals described that compassion and empathy drives where the data goes. If the administrators are apathetic about how data gets used, it becomes less used. However, when the data connects directly with something the administrators feel strongly about, the data potentially supports the implementation of programs or services that benefit kids. There is, of course, potential for misguided interventions, but there is a feedback mechanism that re-informs the interventions—how did they work? What would work

better? Administrators have the hope that their work has worth, their problem solving is effective, and that they are supported by the data. Linda noted that because values empathy and that the role of schools is to "be compassionate and work through those barriers that families and children have to make education accessible to them." Helen added that she feels that "a big component of working in education is understanding that people come with complexities. A child's development and success is very much linked to their social reality and how they see the world and what they value." When asked how her empathetic stance is valued in the organization she stated: "I've had conversations with my superintendent about it sometimes and she says, 'Helen, you're overthinking.' Maybe I do overthink but I feel that the child has a better chance at being successful if I can figure out some of those pieces." Helen articulates the challenge with making meaning with complexity—and also suggests that in her case "overthinking" has been discouraged. Helen pretty clearly valued the antecedent conditions, climate and well-being ideas we were discussing, so I asked her why she thought that people like her who looked beyond the achievement mandates, those who more broadly considered contextual factors, well-being, and climate. She responded:

> I suppose everybody has a moral purpose, right? I understood my story and I valued story and experiences. I feel that everybody, whether it's a student demonstrating behaviour or whether it's a parent who's come in the office and is emotional about something, there's always something that drives [that]. There's a social story, there's a social history. Everybody has different social realities that drive how they're presenting or what they're able to do in a moment or decision that they're making.

**Shifting Achievement Focus to a Successful Experiences Focus**

Although this study focuses on the use of data for equitable purposes in schools, every person in the school has a role to play with respect to creating intentionally inviting environments. The way the information is shared with staff and the way that teachers will be able to use data will have an impact on the educative experiences of students in schools. Theoharis (2009) suggests administrators committed to advancing equity and social justice need to acquire discrete skills and knowledge with data, possess core leadership skills, intentionally advance inclusion and access, improve the learning context, create a climate of belonging, raise student achievement, and sustain oneself professionally and personally. Advancing equity through the use of data requires a learning stance that is optimistic, trusting, and intentional, and in order for it to have an effect at the classroom level, all staff not only need to have a deeper understanding of discrepancies in outcomes between groups, but also need to feel prepared to respond to inequities once they have been made visible. Administrators play a key role in setting the agenda of what types of data are deemed important through the selection and highlighting of various sources of information at staff meetings, in conversations, and during performance appraisals.

The administrators in this study provided evidence that they took a more holistic approach to achievement than has been historically emphasized. Participants were clear that they did not subscribe to a basic skills and accountability model of improving outcomes for students. One administrator described the historical focus on achievement and standardized testing this way:

People didn't connect the [other factors] enough to student achievement because

the priority was to teach curriculum and have a child meet provincial standards.

That's it. They would think: "I'm not a social worker. I'm not a community

builder. I'm not an immigrant settlement worker. I'm not a nurse. My job is to

teach curriculum, all the other stuff is busy and gets in the way." I think

educators, teachers, there are some great teachers who have that holistic

perspective but my experience as an administrator we were just hyper focused on

delivering curriculum rather than teaching students. The platform was: my job is

to be a teacher of curriculum not a teacher of students.

As Gutiérrez (2008) suggests, there need to be a shift away from gap-gazing to

interventions that stand to more positively enhance the experiences of marginalized

groups of students. Several administrators in this study provided key examples that reveal

much positive benefit to students. The case below offers a unique glimpse at how one

administrator advanced to the social engagement of a group of students who were

otherwise disinvited from aspects of school life.

Social engagement in school, as a facet of overall school engagement, has benefits

relating to social connectedness which is has been identified as being protective against

risky behaviours and other risk factors (Zins, 2004). Participation in extracurricular

activities increases the chance that students build stronger social bonds both with other

students and with coaches or supervising teachers, and coaches are especially well-

positioned to serve as mentors when students face academic disengagement.

As such, one story relayed by a participating administrator reveals how having

engagement data disaggregated to the level of sex/gender and immigrant status allowed

for a clearly targeted intervention that stands to have an important impact on the students

at Burton Middle School (Pseudonym). Kieran reported that TTFM results indicated a serious divergence between levels of social engagement through participation in sports and club. While it is usual for participation in school sports and clubs to decline slightly across the years, findings at Burton revealed a major drop off in the participation rates of immigrant girls, falling from approximately 40% to less than 10% by the end of grade 8. This drop was mirrored in the overall population, though to a lesser degree, and it could be stated that the levels of participation were among the lowest in the country. However, what is important to note is that the immigrant population made up approximately 80% of the whole and of that 50% are girls. When looking at the overall population there was a notable decline in the social engagement measures—but what was not apparent was that the change was due almost exclusively due to one population of students. That is, immigrant girls accounted almost all of the decline and it was only through disaggregating to the subgroup that this fact became visible.

Kieran noted that the school saw a pattern of low self-esteem among newcomer girls as evidenced by her findings from the TTFM measure of self-esteem. She stated that: "We've seen a real pattern here at the school with them struggling with image and self-esteem. I've talked a lot with our equity department about that data and about the possibility of running a girls' self-esteem program here at the school to support that." The program is called Glow and is has been designed to address some cultural differences where girls may

> really struggle with having role models in their life about who they should
>
> become. They see their moms and their aunts, if they have continued a traditional
>
> lifestyle … too many them are rejecting their moms and their aunts because they

don't see the value of that traditional appearance in the community.

The program is supposed to help bridge the gap and support the development of positive self-esteem.

Kieran also noted that different cultural values needed to be addressed and unpacked in her school with respect to gender-specific role models:

> We did a big project there in grades 6, 7, and 8 around role definitions by gender in trying to unpack and desensitizing to kids and getting them to see that gender roles aren't these predefined things. What was interesting about that is once we started to talk about it, they have a lot of the South Asian boys tell us that they have lots of difficulty with the association of a dress with female because in their culture, men wore dresses or what appeared to look like dresses because they're long tops with pants. We found that was interesting.

Kieran noted that the project was very helpful in addressing stereotypes of gender expression and to allow all students to develop and more sophisticated understanding of gender expression norms, and identity. She noted that "Once we did this project and we did it across all the grades, they all started to come forward and saying things like: 'This really bugs me that we equate feminism or female with this type of clothing.'"

## Being Intentional

Doug Reeves (2006) makes the point that leaders can be lucky; they might have good results by accident but they would have a low understanding of the antecedents. Those who are leading, he argues, have a deep understanding and intentional strategy for attaining the desired results and those are more likely to be sustained because understanding of the antecedents is high. In order for an intentional strategy to be

effective data must not only be collected (which in many cases it is not because there is simply no requirement to do so) and it must be interpreted. When leaders, however are unable to situate gaps in outcomes within a historically oppressive or biased context, it becomes important to move beyond leader context and look at how key data are used.

## Discussion of Findings: Making Connections

This section describes and aims to synthesize the findings in relation to the general literature. Principals revealed a lack of knowledge and sometimes a lack of direction or mandate for leading explicitly for more equitable outcomes. Recall, however that some principals did not demonstrate that they were ready to acknowledge gaps. Once acknowledged, however, next steps need to be established and those too will be discussed.

## No Mandate

One principal described the current situation with respect to leading with data for equitable purposes this way: "we have the means but we don't have the mandate." Ministry policies and guidelines (e.g., the *School Effectiveness Framework*, the *Ontario Leadership Strategy*, and the *Equity and Inclusive Education Policy*) specifically reference the importance of attending to "gaps" in achievement and outcomes without specific reference to how and without articulating specifically the why. I believe that attending to outcome gaps in achievement, well-being, and school climate is a measurable and testable way of creating more equitable conditions in schools. In fact, differences in outcomes between subgroups should be seen as a key indicator of inequity. It has been argued that schools should be a microcosm of the social ideal, that where social and cultural inequities persist in the broad society that there needs to be a concerted effort to not replicate and attend to them in schools (Nezavdal, 2003). If we

believe that schools should rise above societal inequities, we need a clear and consistent method for the right people to do so. In this way, this work is exploring both how equity work via data is being done and also how it needs to be done in order to be able to be able to demonstrate that meaningful change is occurring.

The antecedents to attending to data for equitable purposes require, therefore, a few logically contingent and critically important things. While I run the risk of stating the obvious, attending to equity through achievement of well-being self-report data requires that the data be available and that it contains sufficient variables to identify subgroups within the dataset so that some comparisons or patterns might be revealed. In this regard, all of the data sources referenced within this study have some missing demographic factors that would naturally prevent certain questions to be answered (e.g., How is the sense of well-being among racialized students changing in our school?). In the example provided, there is a notable gap in data about racialized students because "race" data is not currently collected within the current measures of well-being. This remains true in standardized achievement measure (like EQAO assessments) as well. Partly as a result of this work, that shortcoming is being addressed for current implementations.

## "Gap-Gazing"

One of the important findings of this study was that administrators often could not move beyond *seeing* differences—it was apparent that it was challenging to move ahead to action. One can assume this is unintentional, and primarily a matter of readiness. It is worth noting, too, that much has been written about "gap-gazing" by scholars who specialize in equity research (Gutiérrez, 2008; Jocson & Rosa, 2015; Lubienski, 2008; Rodriguez, 2001). Their point has been that the achievement gap focus has placed too

much emphasis on the underperformance of specific groups (i.e., racialized, ELL students, and other minorities) in ways that support deficit thinking and offer little more than a static picture of negative narratives about the performance of various sub-populations of students. Gutiérrez (2008) argues the most dangerous occurrence of gap-gazing are analyses that merely document the existence of the gap (p. 357) and she suggests a need for increased focus on intervention research for specific groups.

While the critique of the overemphasis on achievement gaps is important, I am reminded of Biesta's (2010) important question of whether we value what we measure or whether we measure what we value. This project, by exploring how administrators consider non-mandated measures of school climate and well-being beyond the dominant narrative of achievement measures. In this way, by moving beyond the identification of gaps and by taking an asset-based stance that is wholly more inclusive of the factors that ought to be more valued in school, factors such as engagement, inclusion, and belonging can be identified and targeted to more effectively support other types of gaps in student experiences that may exist. Widening the scope of what we think about when one talks about gaps in experiences can enrich the conversation and provide some important clues on what type of intervention is worthwhile. Obviously, there are places where only teaching discrete academic skills (e.g., in the case of non-reading students) makes sense. In other cases, however, the disparities between how groups experience and access opportunities in schools provide compelling reason for changing practices to be more inclusive and inviting. Widening the focus from achievement- and deficit-oriented thinking to asset-based and experience-based thinking makes sense if we value all the factors that contribute to successful experiences of school in themselves and without necessarily appealing to their direct effect on achievement and without evidence that

achievement should be held in the highest esteem or ahead of all other factors.

## Beyond Gap-Gazing

The historic emphasis on gaps in achievement is no coincidence. It has followed the patterns of political focus both in the United States and Canada through the comprehensive and systematic collection standardized testing data via initiative such as NCLB and EQAO assessments. This, in turn, has seemingly set the agenda for what has been seen as important in education (quite logically) and it has also influenced the kind of narratives that feature in the literature on data-driven decision-making and on leading for improved achievement. Of course, improved achievement should be the end-in-view but when actions are oriented around treatment of academics without collecting or understanding the life factors and factors of how students experience schooling, and without a plan to attend to the antecedents, the effort has fallen short.

In Ontario, although literacy scores continue to slowly increase, mathematics scores continue to decline despite a strong and concerted effort to increase achievement overall. Elsewhere, such as in The Achievement Gap initiative at Harvard, work has begun work on attending to factors beyond academic scores and patterns in the data by extending conversations to student agency and teacher quality, little work has actually advocated and suggested for the inclusion of factors of engagement, social, institutional, intellectual because there is not yet a universal practice for collection of such data within all of Ontario or elsewhere although the province of Alberta and New South Wales in Australia are using TTFM universally.

## From Gap-Gazing to Making a Difference

Significant attention has been paid in the literature on achievement gaps. Standardized assessment practice like EQAO and NCLB have—simply through their

featured presence—set the agenda for what many people would say is important about education. That is, schools should be improving overall. From an equity perspective, many scholars and school systems have focused on the achievement gaps that have become visible as new ways of disaggregating variables came into use through the increased collection of demographic variables. One needs to look more closely and attend more carefully to know whether the attention to the existence of student achievement gaps has resulted on useful differences in schools. One of the major challenges with this effort—to increase outcomes that might determine to be inequitable—is that school boards do not have results. School boards monitor and publicly report progress on their BIPSAs and multi-year strategic plans. Some of those plans may have monitoring discrepant outcomes in view; for example, the current board of study has a stated focus on Applied Learners and students with special education needs. Other boards in the province such as TDSB have focused on discrepant outcomes based on other population characteristics such as "race."

It is probably worth emphasizing that school boards do not have students, per se; only schools have students. Board goals and results are never anything more than the aggregation of school boards results. This means that if schools want to improve outcomes, they need much more than population-monitoring strategies. They also need to develop methods for monitoring the contribution of outcome to the board results by individual schools. Within schools, leadership teams, principals, and teachers would do well to be informed of their contribution as well—not only the contribution of school results to the board goals but also student, cohort, subgroup, and group contributions to the school results. In this way, the effort of interventions can be monitored and the effects realized. The relationships between students, school results, and board results can be

understood by exploring outcomes of population measures at the various levels in the organization.

## Discussion: The Landscape of Data and Equity

Through the selection questionnaire and through the interviews, school administrators in this study identified the principle of equity as playing a central role in their work in schools. The dialectic between board direction through the Multi-Year Strategic plan, Board Improvement Plan, and School Improvement Plan revealed that both global and local foci informed one another in ways that it made sense to discuss findings at the broader policy and board level as well as more specifically at the local level due to the uniqueness of each school site.

Findings indicate that there are some gaps in policy that make the attendance to equity issues far more challenging than they need to be, and this is almost exclusively at the highest level due to a lack of policy that guides specific measurement in school boards in the province. The principal participants also revealed some key differences in the understanding and ability to do equity work with data. Aspects of the need can be addressed through a potentially easy fix but as of now in Ontario, the main policy document pertaining to achieving goals of equity and inclusivity in school boards is the *Equity and Inclusive Education in Ontario Schools: Guidelines for Policy Development and Implementation* (Ministry of Education, 2014). While the latter document does address the needs to remove bias and barriers, create an inclusive environment, and provides guidance in terms of anti-discriminatory practices, it does not go deep or far enough to describe specifically how one might measure and make determinations about the state of affairs in terms of possible inequities and potential gaps in public schooling.

That is, there is no specific guidance on how one might determine whether programs, outcomes, and experiences for students are similar enough to be termed equitable and there is no guidance provided on how one might monitor that. Coupling those policy shortcomings with the variance and sometimes inconsistent and ad hoc approaches across 72 school boards in Ontario, it should come as no surprise that there is a dearth of globally aligned approaches.

### Revisiting the Importance of Measuring Discrepant Outcomes

Monitoring whether things are becoming more or less equitable is a worthwhile and important goal. When properly planned for, data can be used to determine whether there are differences in outcomes between groups. One can measure whether those differences (if and where they might exist) are narrowing or increasing. Outcome gaps that are narrowing can be said to reveal that things are getting more equitable. That is, when differences in outcomes narrow—and there is no a priori reason to accept that the gaps should be present—one can make an informed judgment that tells us that the goals of equity are being achieved. However, when there is no direct mandate to measure discrepant outcomes between groups, or when the appropriate demographic variables are not present, the measurement of equity becomes impossible.

It is important to remind the reader that equity can both increase and decrease despite the broader general direction in monitored outcomes as revealed by the trend. As such, it is worth noting specifically that one can improve the overall direction of outcome over time and still manage to decrease the level of equity attainment in schools. This can happen when policies or programs are disproportionately favourable to the dominant population at a site without attention to the implications for all students. Thus,

measurement of between-group differences in outcomes is fundamentally necessary to assess impact of intervention. Conversely, one could conceivably attend in such a focused way to particular groups that discrepancies in outcomes decrease while at the same time the overall trend could be negative in the overall population. With these considerations in view, and in light of highly variable demographic patterns among the schools from which administrators in this study were selected, it should become clear that what should be a matter of policy is that there will necessarily be variance in the groups that need to be monitored to attend to increasing equity in any one site. This is an important point that also has implications worthy of mention.

First, inequities can be revealed in such varied ways both visible and invisible that monitoring efforts needs to focus on the needs of the local population; second, no global methodology will necessarily align with the most urgent needs in equity in any one school because of group and population variance. However, being able to identify variance in group and population dynamics will enable policies and practices to provide a meaningful and consistent guide for how to use data for equitable purposes. However, despite the need for variance the current approach in Ontario, the current policies are not specific enough in terms of what to measure and how. In fact, the absence of a consistent set of measure across and between school districts makes it impossible to determine equity patterns and trends in a consistent way provincially. However, one might appeal to broader trends and patterns in the board to help situate the population if any one school. As such, I will return to this discussion in chapter 5.

The role of school administrators includes bringing forth data, setting direction, and identifying trends and patterns in student outcomes. In the studied sample,

administrators revealed through their own stated commitment that some of them employed interventions and monitoring actions that confirmed a deep commitment to equity in their schools. However, it also became clear as interview data approached saturation on the topic that administrators were often unable to provide key information on how they actually used data to attend to equity in their schools. Sometimes they took positions that were seemingly inequitable. While it appeared that interest in equity was central to the work of administrators in this study, the pursuit of equity in schools should not be left to noble intentions, passions or interests because policy can be clarified such that the actions of measuring discrepant outcomes is done in consistent and purposeful ways. In the current landscape, however, we have a policy void that makes the likelihood of measurement of discrepant outcomes more of a hoped-for than an intelligent and deliberately consistent practice. Unfortunately, without a consistent approach to collecting the full range of possible demographic variables we will have a poor understanding whether or not the goals of equity via increasingly similar outcomes between groups can better realized.

## Reflecting in Findings

The dialectic between board and school-level decision-making as well as the variance in population features in schools in the GTA provides a compelling reason to consider the findings in light of more global features of what a solid approach to measuring equity with data might look like regardless of the particular population in view. Because schools in the board of study vary tremendously in their modes of diversity (both visible and invisible), it is important to propose that based on the interviews conducted in this study, using measurable objective data requires both broader

strategic direction in approach as well as localized attention to the areas of greatest equity needs at any school site. Some of the schools under consideration had large populations of students living in poverty and as Jensen (2009) notes, poverty has both expected and sometimes misunderstood consequences that directly affects efforts at addressing them. An example of this is seen in one school that, through creativity, tenacity, and dedication from the school principal, was able to offer academic and extracurricular summer programming. However, very few of the students whom the summer courses were meant to benefit actually took up the offer.

Jensen (2009) suggests that poverty can create conditions where immediate needs must be personally prioritized in families such that planning for future events (such as enrolling for a summer program several months in advance) could not happen in the required timeframe. As such, the aforementioned summer program offerings ended up being filled with students outside of the local boundary because there were more parents from outside the low income community who were equipped to take advantage. This distressed the principal, who struggled to extend services specifically to those who needed it most. This is another example of why good intentions are insufficient for addressing need and is consistent with the broader findings of this study that very specific globally directed behaviours with data can help answer questions about needs in schools such that local variance can then become better equipped to respond to that needs in targeted ways.

A key need raised by this examination was that, almost universally, the participants in this study asked for more targeted guidance on how to do their equity work. Administrators identified some gaps in data to pursue equity work. For example,

that the EQAO does not collect the full set of disaggregating variables available within TTFM thereby making comparison difficult. Some principals identified gaps in their own skill sets, such as Linda who stated: "I don't think that we're using our TTFM information well; I don't know if we're not using it or not drilling it down enough to feel confident that it's really helping us, in school improvement planning [for equity]." All administrators in this study demonstrated a willingness to appeal to board and community and broader expertise in making judgments about student need as well as from the lived experiences of their role (e.g., by the obvious student needs before them due to poverty, cultural, or academic factors). As such, it became clear that interest and care were insufficient conditions for attending to equity with consistency.

Without a clear directive, even in the presence of concern, care, and stated interest in equity, the existing data were often overwhelming and guidance was requested by participants to make meaning—and where there were specific gaps in data (e.g., no survey data below grade 4 due to readability issues), some of the administrators were effective at filling in some of the gaps through tracking systems, focus groups, and interventions like silent mentoring. Several more administrators developed their own methods for collecting student voice in the primary years, including teacher-guided surveys that used pictographs instead text in some cases to gauge student response.

In terms of the practices of looking at data, all of the administrators stated that the work fell to either themselves or they needed to assemble a leadership team for school improvement planning where the team would try to unpack all the data available to them. However, for a number of those teams, administrators often suggested that they could use more guidance on the process. One described it this way: "Far too often, we sit there

looking at the table, thinking, 'What does this mean?' Like it'd be nice to just have someone tell us." Another principal added that "using data takes time—most of my budget goes to releasing teachers to develop understanding." It was clear that these principals needed help with interpretation and they perhaps also need permission to seek information on how kids feel and explore the perspectives of the students. However, without a mandate to undertake specific actions and direction on what to look for specifically, working to address systemic inequities is largely going to be left to chance.

Administrators who have committed to responding to equity have developed significant capacity and commitment to an integrated service model—they are aware of the community level supports available to them and they call of local expertise to build capacity and to respond to needs. Unfortunately, knowing precisely what one school would be attending to in using data to monitor changes in equity tended to elude many of them and they saw the current guidance on using data for equitable purposes to be lacking. For example, Tom noted: "So who sets the board goals for that? Well, even so, the board has a menu board of actions, or strategies that they feel will be effective for achievement, social. Where does the board get the evidence that those strategies are going to be effective?" Tom's comment is suggestive of a lack of clarity on using data for equitable purposes.

## Local Work—One Size Will Not Fit All

Global strategies, while important, cannot stand in for local goals because in many schools, including some of those discussed here, the immigrant population is very low by comparison and therefore consider different factors with respect to equity. A generalist model, or whole school approach at equity, while noble is not likely to make

specific differences and some administrators very much took a generalist stance in glossing over experiential differences. For example, Tom noted that although there were some differences in his schools between sub-populations, "What's interesting about our school is even though the demographics are diverse in terms of labels, the actual nature of the kids is fairly homogeneous." Unfortunately, perceived homogeneity will result in a lack of granularity and precision that good data collection can reveal.

Global approaches should therefore guide possibilities at a high level, providing many opportunities for differentiation at the local level. That is, the full set of demographic variables should be available for monitoring but the local selections must be made on local need. The gaps in available data and disaggregations will be explored next with a view to local ingenuities discovered in pursuit of equity. There are challenges between the availability and a comprehensive practice. There also are challenges of availability, of capacity, and of intervention. However, despite these challenges, administrators in this study have revealed some unique and valuable ways to attend to more equitable outcomes in their schools.

**CHAPTER FIVE: SITUATING FINDINGS IN CONTEXT**

This chapter discusses the study's findings corresponding to the broader context of redressing equity with data. It explains how the findings relate to the convergence of factors that are necessary to redress equity in measurable ways. This section summarizes themes relevant to the findings—importance of stance and "seeing"; issues of capacity and literacy; importance of factors beyond achievement—and concludes by situating the scope and range of inequity.

**An Inviting Stance and "Seeing" Inequity**

As analysis of participant interviews began, the discussions revealed much about how and why administrators used data for equitable purposes. Some administrators took an inviting stance automatically, while others revealed limitations in their knowledge and use of data and questioned its veracity or validity. Although all participating administrators stated they cared particularly about issues of equity, in a few cases they also revealed a disinviting stance—that is, stating one's intention or existence of care about equity was not sufficient to ensure that the right things happened on purpose for purposes that could be defended. Consider Thea's explanation (and recall this is a person who self-identified as having a caring commitment to equity) when she questioned the measure of bullying on TTFM:

> to be honest with you, I really don't like the questions in *Tell Them From Me*. I
>
> think they ask questions that the kids don't understand and the wording of the
>
> questions makes them go to the negative. What is the definition of bullying?

She illustrated the point about interpretation with an example and continued as follows:

> I had a boy just say he was excluded from the grade seven walk to McDonald's

and I said, "Wait a minute, come here. What do you mean?" He goes, "Well, I

don't have my own computer, I don't have FaceTime, I couldn't be added to the

group chat so I've been excluded."

The administrator described her response: "No. Whoa, no, you weren't excluded. You

could not participate based on your own life situation. When the kids came in today, they

just told me they asked you to come, and you didn't have a parent approval." Thea told

the student that he was not, in fact, disinvited. Such interactions can have a tremendous

impact on how a child will perceive their peer relationships or their feelings about school.

The response to the student not only felt cold, unempathetic, and disinviting but also

could be detrimental to a student who was able to advocate for himself and dismissed by

an adult with power to make a difference. The student was equipped to describe the

situation in some detail, and to identify with clarity some key missing pieces that

contributed to his feeling of being excluded. Instead of receiving an understanding

empathy and assistance that was validating, the student was corrected in a way that would

certainly have diminished the worth of his feelings.

Earlier, this project discussed the importance of taking an invitational stance with

data and identified that from a leadership perspective, invitational theory offers a

construct for attending to domains worthy of deep consideration: the people, places,

policies, programs, and processes of education. Hattie (2009 identified that invitational

theory has powerful positive effects in schools (p. 34) in general, and some—but not

all—administrators in this study revealed they had reflected on data and information in a

way that is consistent with the optimistic stance of invitational theory.

**Asset and Deficit Stances and Perspectives**

It should be emphasized that although it is important that discrepant outcomes between groups be discoverable in objective ways, it is crucial that consideration is given to the potentially negative effects of the intention to capture these data. Without sufficient supports and guidance, there is a very real risk that the activity of comparing outcomes between groups can be harmful. School leaders need to be equipped to consider the potentially negative effects of the intention to capture data. For example, if the population being considered is too small, and data may exist at the board level but be suppressed at the school level (as is the case with most data on Indigenous students), the appropriateness of the collection must be questioned. Although the goal would be to deepen our understanding and inform our practice in ways that are sensitive and useful, data that are shared can also reinforce negative aspects and stereotypes of already marginalized groups without the right supports in place for the recipient of that data. Users should also consider the power relationships between those who are collecting or sharing data and those who are in it.

Sometimes it becomes clear that data collection should be done in consultation with participants and although it might feel right to know about every group of students, it may not always be the right path. In the case of our Indigenous students, there is a real challenge in justifying group data collection based on Indigenous status without deeper reflection. I recently attended a learning session organized by the Ministry intended to share some of the provincial research findings about Indigenous learners in the board and province. In the midst of that sharing, a very poignant question was asked: How is collecting data about Indigenous students [in this way] not a colonial activity? Indeed,

there are devastating historical examples and grave implications of data collection and appropriation. Intentionality not only with use but also with acquisition must be exercised lest colonial activities perpetuate unjust practices.

Much has been written on the negative effects of large-scale standardized tests, particularly when the stakes are high; that is, when critical decisions passing, failing, admittance to further programming are determined by them. In this study, several participants raised issues of trust with EQAO testing in the province despite predominantly relying on them as a source for school improvement planning information; as Tom put it, "I don't like using report card data because that's subjective to a teacher." Distrust of data here is problematic in the same way that the administrators noted differences between subgroups but did not attribute them to inequitable conditions. What this comment suggests is that more work needs to be done to build understanding about strength and limitations of all forms of data as pieces of information that contribute to understanding rather than as pieces of information that define understanding. In Ontario, the historical focus on EQAO data through simple availability has privileged it in ways that should probably be reconsidered. In fact, several school boards in the province recently have requested a moratorium on EQAO assessments in order to attempt to rectify and resituate the use of these data within the shifting focus on school improvement to include factors of well-being concepts as well.

While questioning the motives and purposes and historical practices in the use of standardized tests has raised many critical issues with the practice, it is nonetheless unfortunate if their use is completely rejected simply because having a more objective and standardized mechanism to discover, monitor, and question variations in outcomes

between groups is potentially highly beneficial toward answering questions pertaining to whether discrepancies between groups are increasing (becoming less equitable) or decreasing (becoming more equitable) regardless of the overall trend in achievement. This is an important piece of information to know if one is hoping to speak to and address equity with some confidence in a reproducible and scientific way.

As such, I suggest that the question about standardized testing in this regard should probably have less to do with eliminating such tests altogether and more to do with reducing the high stakes uses and monitoring utility rather than evaluative usage. The effort to approaching the use of standardized tests can therefore move to a model of refinement over rejection, with the question shifting not from "Do we keep or discard?" but rather "Are the current standardized tests sufficiently sensitive to be relied upon to reveal discrepancy outcomes between groups that are useful in attending to them?"

### Capacity With Key Data and Literacy

Data can be difficult to zero in on, with a multitude of possibilities for focus. When asked to describe some of the key pieces of data used in their schools, school administrators showed resourcefulness and commitment to gathering quality evidence to support their judgments and inferences. This was particularly important when considering findings in the data that seemed to reflect patterns among groups of individuals. A key challenge with population measures like TTFM, however, is that surveys require a certain development of literacy to be able to make sense of the questions in consistent and meaningful ways. This means that measuring engagement and belonging and other antecedents to learning is much more challenging in the early elementary years. In those cases, administrators have had to rely on their own methods to monitor what was

happening. Other sources, like EQAO assessment data, were identified as being lagging indicators that were not available until after grade 3 and consequently data about students in the primary years was quite sparse. Nonetheless, several school administrators devised fairly sophisticated systems of tracking students from their data wall where all students in the school were plotted by colour code and position on a chart to reflect their achievement relative to expected location for outcomes based on several diagnostic reading assessments, such as PM Benchmarks and DRA.

What this allowed was a quick glance at the distribution of achievement with respect to literacy acquisition but also a very clear indication of outliers; that is, students whose literacy skills were developing above or below the expected range. Rate of growth, an important factor in the diagnosis of learning exceptionalities, was not easy to monitor in a two-dimensional display but could be explored more fully once variance was noted. The data-wall practices revealed that even in the absence of self-report, climate, and well-being data from instruments like TTFM, administrators who focused on identifying deviance and variance in academic outcome were in a better position to identify and consider the broader learning and well-being needs of a student. That is, they knew from experience (either personal or professional) that they could understand more clearly the issues being faced by focusing on gaps.

In working with schools, the senior team, administrators, teachers, and system leaders over the past 7 years with the aim of school and board improvement, some of the gaps in available information and approaches have become apparent. These factors, the limited set of disaggregating variables, the high-level non-specific mandates, and variation in approaches have become complicating factors in building data literacy and in

sustaining specific equity-oriented measurable goals. However, one of the most challenging goals arises from some of the biases that arise in the reception of data and information. Recall that some principals were unable to believe that discrepancies in the data suggested social inequities. Evidence is ultimately judged by expectations and the number of potential biases on reception ultimately must be considered in order to effect positive change with discrepant data—and that is presuming the individual holds the appropriate core beliefs.

I provide some of example of the types of biases I typically encounter when working with leaders and board and school teams. Kapchuk (2003) provides relevant guidance on the naming of some of these biases. It is always helpful to be aware of the notion of confirmation bias—the idea that we are generally more likely to attend to evidence that supports our worldview or schema than the contrary. Another common bias I encounter has been termed "rescue bias": the practice of discounting data by finding selective faults with what is revealed. For example, it is not uncommon for principals to review a result on a measure of bullying and respond, "yeah but the kids don't really know what bullying is" or "yeah but there was a particularly significant event just preceding the survey (say, a physical fight) and that would have impacted how the students responded." Another bias that sometimes arises is related to the previous example of the physical fight, which has been called the auxiliary hypothesis bias: "if the fight didn't happen, the result would have been lower." The point is, even with the availability of high-quality dynamic and easily accessed data, interpretive biases can undermine reception and response.

**Expanding From the Historical Focus on Achievement**

Administrators in this study revealed use of data practices that were consistent with the direction from the board and from the Ministry. Unfortunately, the general notion of closing the achievement gap—with its priority focus on achievement above other factors—has not been a specific enough idea to ensure that sufficient care and attention is consistently paid to differences in experiences and outcomes between and within groups to ensure that equity is a goal being adequately attended to. That is, a lack of a mandate to scientifically measure whether things are improving or worsening for disinvited students leaves the attaining of goals of equity more to chance than is necessary. Furthermore, there is solid evidence that monitoring achievement only or prioritizing factors of achievement ahead of climate, well-being, and assets-based factors has not produced the kinds of gains in education that would be desired given the persistent gaps in achievement based on social and cultural factors. The lack of mandate for measuring discrepant outcomes is a significant gap in policy worthy of further consideration. However, it is not the absence of policy that has directed action but rather current policy and administrators identified key factors of policy on their data-use practices.

When asked, each of the participating administrators stated that they retained a data binder of their must-haves or those pieces of information they felt the superintendents would be inquiring about. These included traditional academic data sources such as EQAO as well as school-climate survey data from TTFM. In this board, TTFM data after 7 years of use has come to be considered traditional but it should be noted that is unlikely to be the case in many of the 72 school boards in the province. One

administrator noted that the board has made an effort to consider "student engagement and culture" but added that "we've been mandated to monitor achievement, but not culture, climate, and well-being, except in those narrow measures of bullying and exclusion." Another added that "the Education Act is still focused on student achievement." Yet another added: "I think that as educators and as teachers, we tend to default to the process entirely linked to grades, right, meaning my job is to teach to the curriculum, and does it meet the provincial standard." These administrators reveal their awareness of the focus on achievement and academic outcomes ahead of other factors while acknowledging the board efforts to go beyond such an approach. When asked about school improvement plans and about the nature of the inclusions of monitoring data, administrators noted that there was no specific requirement to monitor other contextual factors beyond bullying measures, although that is changing given the focus of Ontario's *Equity Action Plan* (Ministry of Education, 2017). As such, many boards' multi-year strategic plans have evolved to include measures of engagement, climate, and factors of well-being.

While the shift in policy direction in the board is a positive direction, data-driven decision-making in the province has focused almost entirely on standardized achievement data and has therefore missed the many opportunities to consider a much broader set of experiential gaps that exist between subgroups of students. This is key, because while achievement matters as an end in terms of opportunities for students, it misses all the contextual factors that matter tremendously to whether the student can and will take up the offer of schooling. Administrators in this study revealed a variety of ways they moved

beyond achievement measures in promising ways, but ultimately policy needs to include a wider set of factors in order to effectively attend to issues of equity.

## Some Program and Structural Inequities

Administrators in this study were also attentive to accessibility of program choice in the community and in the building. Several of them noted the differences in achievement between French Immersion and English Track programs and mused that parental selection may explain some of the differences in attainment in the programs. That is, it was thought that parents who valued and therefore selected the immersion program were already more likely to advantage their children in other ways. Families are to known to pass on skills, behaviours, knowledge, attitudes, habits, and more complex skills, which the administrators suggested might be factors related to program selection, and these differences were noted by several responding principals. Although access to French Immersion programming varies between districts, some scholars (e.g., Willms, 2008) have noted that inequities between populations and schools are exacerbated when self-selection to program is the predominant model. For this reason, Willms argues that French Immersion therefore should be universally implemented or not at all. While the question is beyond the scope of this study, it is difficult to reconcile public rejection of private health care but acceptance of private schools: Why is one supported but not the other? It might be effectively argued that private schools concentrate social and cultural advantage in some locations to the detriment of others, in much the same way as French Immersion does, according to Willms (2008).

Several administrators also discussed accessibility to program as being important considerations with the selection for self-contained classes—another avenue for

perpetuation of inequities. Administrators' schools ranged from being over-representative in gifted students while others felt their students were under-represented. Most administrators took for granted that giftedness co-varied with socioeconomic factors, and although it is known that giftedness is under-represented among minorities and those from low-SES backgrounds, there is evidence that inequity is a function of inequities in nomination (McBee, 2006). When administrators discussed program opportunities, they focused on factors of diversity, SES needs, barriers to learning from a cultural (immigrant status) or linguistic (ELL) perspective, as well as in terms of values in the community such as the valuing of achievement outcomes above other factors.

## Beyond Measuring Equity Work With Data

Data-use practices appear to be evolving. There is a growing shift in the kind of data that are being collected and monitored, moving from achievement only to greater inclusions of asset-based, cultural, and well-being factors thanks in part to the dedicated work of those committed to eliminating or reducing inequities as much as possible. One administrator noted that when she first got into leadership, she was strictly using quantitative data, EQAO, and later DRA and PM benchmarks. Her understanding has evolved from needing to have quantitative to more qualitative things like observations, conversations, products of work, including instructional reflection both in academic areas and in climate areas. Other administrators spoke of this shift too, with one stating that "I started out on my career just focused on standard data, now we're more thinking about triangulation, what we hear from families, thinking about equity, differentiation and so on." She stated that quantitative data historically has been valued more than other types and that the idea of using data itself has an "old school quantitative connotation." This

shift has been reflected more broadly in the advance of our knowledge of our biases in regard to data, particularly with respect to notions of data neutrality form the positivistic age. Also, we are collectively more aware of our own presence in our collection.

Administrators also spoke about equitable practices of data collection and interpretation practices more generally. One administrator stated that it was important to question our own biases, perceptions, and assumptions, "using equity lenses trying to get a handle on the vibe of the school." She discussed the idea that culturally relevant pedagogy, or culturally responsive teaching, is important to equity—and that "means in [her] building." She sees that equity is very important in building the cultural responsive pedagogy and since they were "doing work in their school" she felt that needed to be reflected in the school improvement plan. She stated that the use of data for equitable purposes was not easy: "I think sometimes if we don't understand what we're looking for and what the relationship means, it prevents us from being able to focus and have clarity on the goals." When asked how she saw that idea of "closing the gap" fitting in with the goals of equity, she stated that it means that "individual students are filling in their needs via identification of those needs by the system. It's a very individual-level focus, rather than the higher perspective." I probed this response a few different ways because I was not clear how individual-level focus related to the idea of closing the gap—particularly in terms of historically marginalized groups—and asked more directly how she felt that differences in outcomes were related to related to equity. She responded by stating unequivocally that in terms of equity, "climate and culture actually come first, ahead of the achievement goals" because we need to ask "what are we doing for the child—what are we doing to get to know the child?" While her point about the importance of the work

was taken, it was not clear if there was awareness of a systemic approach to attending to

inequities. Nonetheless, this principal's position echoes the shift away from numbers in

some ways and allows her to get closer to understanding the individual kids.

**CHAPTER SIX: CONCLUSION, IMPLICATIONS, AND RECOMMENDATIONS**

This research intended to identity how one set of school administrators with a stated commitment to leading for equitable purposes accessed, understood, and responded to discrepancy information and data available to them in the aim of achieving more equitable outcomes for students. The study showed that there was great variation in data and equity literacy among responding principals. Some principals did not identify discrepant outcomes, while others did so but could not attribute them to inequitable conditions, or they were at least questioning in this regard. Of those who successfully identified key discrepancies, it was not always clear that they moved beyond gap-gazing or a very broad approach to attending to them; the approaches lacked specificity. A handful of principals were doing things to redress inequity with data but usually in their own way without the advantage of a systematic approach, and the potential reasons for this have been explored in terms of data literacy, equity literacy, the competing demands of the role, as well as in terms of lack of mandate and a possible lack of will.

Although school boards in Ontario receive guidance about improving achievement and attending to gaps in achievement through the School Effectiveness Framework, there has been very limited attention given to contextual factors of schooling experiences beyond the requirements to monitor bullying and inclusion as required by the Education Act (Government of Ontario, 1990). Furthermore, despite having in place an Equity and Inclusive Education Policy (Ministry of Education, 2014) document to guide the work, there are no specific mandates in Ontario to attend to discrepant outcomes between groups or subgroups particularly in contextual domains such as school climate, well-being, and assets-based measures such as school engagement, sense of belonging, or

personal relationships. The lack of standardized practices or instruments to scientifically

measure progress toward the goals of equity has resulted in great variance in how and

even *if* school boards in the province choose to attend to this work.

Discovering how school administrators access, use, and respond to

complementary school climate data to attend to issues of disproportionality is an

important step toward making schools more equitable and more inviting. This study

revealed considerable work could be done with respect to educator understanding and at

the provincial policy level. There is certainly evidence arising in this study that suggest a

need to improve the more global practices pertaining to measuring equity in the province.

There is a clear indication that within the board, some practices have improved on the

minimum requirements, moving to a state of measuring a greater set of demographic

variables in climate and well-being data sources and student surveys that are available in

any provincial data. However, when one moves consideration to the school level as was

done here within the interviews, the efforts of school administrators to attend to issues of

equity and the practices in place become both more varied and also more specialized.

Given the dialogue between local needs and global strategy, it seemed clear from this

exploration that global strategies will require localized foci and approach because as was

found in this study, the factors of equity will have a high degree of variance between

sites.

## Contextual Limitations

The reality is that many data sources lack disaggregating variables and are

therefore inadequate in their ability to inform judgments about equity and potentially

changing equity conditions. Also, school contexts were highly variable in terms of

student diversity and therefore local specific understanding and measurement of discrepancies is necessary; that is, global factors must be assessed for applicability to local context. There was a high degree of variability between participants in their understanding of the current underachievement discrepancies well-documented in the literature as well as with variance in well-being factors (e.g., through measures of engagement and belonging) between subgroups. As such, it was impossible to specify which factors of inequity might be present that were not immediately visible in the data sources due to either non-measurement or the absence of a mandate to disaggregate specific indicators of achievement of well-being. In this way it became clear as interviews were conducted that everyone involved in school (and not just school administrators) should be educated about what the performance and outcomes gaps are and, locally, schools should have a clear and consistent pathway for determining this at their level, which was not always the case.

**Narrow Focus Pitfalls**

In Ontario, school improvement efforts have almost wholly focused on student achievement factors, with much less attention paid to contextual factors of well-being, school climate, and assets-based measures, largely because the EQAO's robust assessments have almost certainly set the agenda for what should be seen as important in education. While it would be incorrect to suggest that achievement should not be the end-in-view, it has seemed essentially short-sighted to consider achievement data ahead of all other factors. In many ways, the singular focus on achievement in the United States and Canada in the literature has helped to perpetuate the notion that achievement is the sole priority. Texts and scholarly publications that focus on data-informed decision-making

point exclusively to achievement gaps that have been readily noted in the literature both in the United States and Canada. The general presence of standardized achievement measures and the absence of standardized measures of context, well-being, and asset-based factors has created a critical void—one that this study has attempted to address. While the literature is rife with data about achievement gaps between subgroups of students, there has been comparatively little attention—indeed in most cases no attention—paid to gaps in data availability addressing contextual, well-being, and asset-based factors such as student engagement.

While some GTA boards such as TDSB have identified serious gaps in achievement and over- and under-representation of certain populations of students on factors such as "race" and sexuality (e.g., TDSB, 2013b), this has been done infrequently (every 4-5 years; TDSB, 2014) and at the population level such that schools would have a difficult time to use this information to respond to student needs in their buildings. As the name "census" implies, it is not clear that this effort has thus far amounted to more than gap-gazing because it has largely focused on the demographics of population counting. The problem has not been limited to public schooling either: University Affairs has recently noted that universities also have serious data-gaps on race, for example. Gutiérrez (2008) has argued that the least beneficial analyses of achievement gaps are those that have merely identified the existence of the gap, and this is precisely what has been happening in some of the GTA school boards, in some cases creating a backlash from the communities and subgroups for whom the efforts have been intended to help. It must be remembered that the release of summary data about discrepant outcomes between groups runs a real risk of being deficit-reinforcing. Take, for example, the case

where the TDSB in an effort to acknowledge discrepancies in outcomes for the Somali

population who were cited as being "50% more likely to be suspended" and to have

lower standardized test scores and to be more likely to be placed in special education

classes. When the TDSB publicized its planned intervention called "Somali Task Force,"

the Somali community organized a petition calling the effort "extremely offensive and

racist" (Shum, 2014, para. 8). This is a clear case of good intentions being completely

insufficient to protect against the risks associated with revealing negative aspects of

already marginalized groups. This echoes the sentiment asserted by the observant

participant of a MISA data session put on by the province first announcing that EQAO

data would not be disaggregated by Indigenous status when she asked the salient

question: How is collecting data about Indigenous students not a colonial activity? This

compelling question did not receive a clear answer.

The risk of being deficit-reinforcing is real and it would be naïve to suggest that

the best path forward is to not collect it at all. Imagine, however, that one might consider

the broader contextual factors in the type of data release that ails the TDSB. What if the

data released not only revealed the negatives but also the positives? All groups of

students have assets and these are worth emphasizing. Also, what if data were released

that showed that the Somali students had higher levels of peer connectedness, and higher

levels of belonging and social engagement? I cannot help but wonder if being more

intentional and inviting in the release of data could have changed that conversation.

For the board in this study, despite central efforts at more precisely attending to

equity, particularly in areas of school climate and well-being, the lack of consistent

variety in disaggregating variables in the area of achievement and standardized testing

has compromised the ability of educators and school districts to assess equity outcomes with precision and objective detail. Although principals of schools in this study have shown a stated interest and conviction to principles of equity, disaggregation, and monitoring of sub-populations across those variables, the lack of a universal model to measure, observe, and respond to issues of equity in Ontario (such as requiring equity audits) has resulted in schools' inability to fully implement consistent, measurable, and testable approaches to attaining more equitable outcomes.

### Shifting Policies

The move to collect further data on "race"-based factors was announced on September 7, 2017 by Mitzie Hunter, the then Minister of Education, but it is unclear how the province will avoid the pitfalls discovered through TDSB's efforts. It cannot be emphasized enough that actions with data are not neutral—they can take an asset- or deficit-based stance. Notation of between-group differences reinforces inequities when used to confirm a deficit perspective. Taking an asset-based stance requires intentionality and users of data must understand the ways in which revealing negative aspects of already marginalized groups can be counter-productive despite intentions. There is no question that there are key differences in data between groups visible to those who look. However, there is also evidence that some do not look at all and therefore miss opportunities to deeply consider and respond. Sometimes, too, when leaders look, they take a deficit- versus an asset-based stance, further undermining efforts they were intended to correct. Paolo Freire, like Richard Nisbett's (2009) beliefs on intelligence, did not believe that the forces of oppression were predestined and immutable, suggesting confidence in the mutability and effect of change is worthwhile.

Data-driven, decision-making literature has focused almost entirely on

standardized achievement data and has therefore missed the many opportunities to consider a much broader set of experiential gaps that exist between subpopulations. This is key, because while achievement matters as an end in terms of future opportunity for students, it misses all the contextual factors that matter tremendously to how students can and will take up the offer of schooling. Administrators in this study revealed ways in which they attend to the contextual factors beyond achievement in thoughtful and promising ways, but more can be done. Systems can be refined to ensure that baselines are developed that are consistent in all schools. Guidance and direction can be provided that require attention to discrepant outcomes but in a way that honours the students in non-deficit-reinforcing ways.

With respect to the preferential focus on achievement that can further alienate already marginalized or disengaged students, common metrics for the contextual and experiential factors can be helpful in taking an asset-based stance. Deepening our understanding of the variances in outcomes and experiences of all groups of students also should involve not only the preference still being given to standardized achievement but also how the narratives and discourses are developed. Data are always subject to misinterpretation whether through lack of awareness of instrument biases (such as response and non-response biases) but also through recipient-originating confirmation biases. How one receives information that certain groups perform low on standardized tests, for example, will be almost certainly mitigated and influenced by any pre-existing biases in our schema. For this reason alone, data needs to be of good quality and confirmed and compared against multiple sources when possible. Consideration should be given to potentially negative effects of the intention to capture data—for example, in trying to answer how collecting data about Indigenous students is not a colonial activity.

In this way, data can be collected and disseminated wholly mindful of the likely power differentials in place between those collecting it and those providing it. Data should be released cautiously and with the right educative supports so that erroneous conclusions are not drawn that are deficit reinforcing. This means, however, that one must start from the proposition that humans are all equal and that differences in outcomes between groups are signs of inequity over the idea that the findings are somehow immutable population characteristics—a dangerous position that need to be rallied against. In this way, data education and information can be a counterforce to the populist and alt-right movements.

## Measurement of Antecedents and Corollaries

The school board selected for study has put in place standardized measures to monitor school climate, student well-being, and asset-based factors through the *Tell Them From Me* (TTFM) surveys and reporting system. Uptake of this tool in Ontario has varied because measurement of these factors has not been mandated and the decision of how and which factors should be monitored has been left to individual school boards to decide. This is not the case everywhere, however. New South Wales, Australia and the province of Alberta have selected this system to monitor these extended factors fully within the entire jurisdiction; this has allowed not only consistent data for all schools in their respective state/province but also has ensured that differences in outcomes between groups in the factors beyond student achievement can be featured in conversations and planning for equitable purposes. In the board of study, knowledge of factors such as student engagement (measures for social, institutional, and intellectual engagement) has allowed these data to be considered alongside factors such as achievement with more

depth. When student participation in extracurricular activities such as sports and clubs increases, for example, there is an increased opportunity for students to increase social-connectedness with peers and mentors such as coaches and leaders of the extra- and co-curriculars, resulting in an increased chance of students receiving the protective benefit of mentorship and positive social relations. Having this type of contextual information is not only assistive but also necessary if one is to lead for equitable purposes, because the contextual and experiential differences between students can be observed apart from singular measures of achievement usually determined by summative assessments at the end of the process.

## Recommendations

Administrators have revealed a need for direct and robust support in the use of data for equitable purposes through the building of understating of their own context and school and by building capacity. The province would do well to increase the demographic variables and align those as available data sources as has been done in both Alberta and New South Wales. The needs for measurement of equity outcomes should be made explicit and teach specific skills—through dissemination of research and clear articulation—pertaining to how school districts should develop a system of informing administrators about the more pressing disparities in their data; and if there are gaps, then which are most urgent? In this way administrators can build understanding of divergence in need and answer questions such as: Are the local priorities from an equity perspective matching those visible in the aggregated data (i.e., in the board data)? This can inform whether schools prioritize the same or unique goals as those of the board. Ultimately,

equity outcomes are testable and schools need to have an efficient way to determine gaps between groups.

## On Universal Monitoring

In the absence of more universal monitoring over well-being, school context, and asset-based variables (as has occurred in Alberta and New South Wales with universal adoption of TTFM), there have been additional challenges related to consistency, quality, and comparability. Monitoring efforts in Ontario are highly varied because there is no expectation for consistency. As such, some school boards are developing measures on their own to attempt to attend to the contextual factors, but they are sometimes problematic. For example, one effort to ask students to rate their personal sense of well-being on a scale might face some philosophical challenges—like asking fish to comment about the water in which they swim. Other challenges include that single item measures not scientifically developed (as they are with TTFM) leave gaps in understanding about how they distribute in a population, whether the measures are stable, and whether they are sensitive to between-group differences. Population measures are not a panacea but they can be excellent at providing a high-level view while missing other important details visible only in student-level data. Therefore, one would want to keep this and other limitations in view; for example, due to readability issues the JK-3 population cannot currently be represented in the board of study survey data at all.

## Limitations of Study Context

This study was designed to intentionally explore an educational context in which several key factors were converging to make secure the aims of equity in the data use practices of school administrators. In many cases, such factors are regionally situated and

this has sometimes been a limitation of this research. That is, of the 72 school boards in

the province, only a handful (and mainly larger boards) frequently employ

comprehensive measures of well-being, student assets, and context and climate variables

that can inform questions about how students experience school. Of course, most districts

in the United States and Canada have access to achievement data from standardized tests

but these have limited usefulness with respect to understanding the antecedent and

contextual factors that may contribute to low achievement for students, particularly for

those who have historically been disinvited. For example, despite the known positive

relationships between school noncompletion and anxiety, a great many school boards still

do not measure anxiety. The reasons for this are many, including cost and resources, but

also potentially lack of knowledge and lack of mandate. Sometimes, as in TDSB,

although important context variables are measured, they are measured with such

infrequency to be almost useless with respect to responding to students. Imagine that a

student survey is completed in fall 2017 and the results are disseminated in early 2018

that grade 8 students—grade 8 girls in particular, and even more specifically grade 8 girls

who are newcomers—experience the highest level of anxiety in your school (not an

unusual finding). Not in every school perhaps, because there may be mitigating factors to

anxiety elsewhere or perhaps there are no newcomers in some schools. Then consider the

importance of attending to this fact with respect to the impact high anxiety can have on

all kinds of factors, including achievement. Then do not measure again for 3 years or, as

in the majority of school boards, do not measure this factor at all. This is where

consistency of approach and policy matter most. We are not yet there.

While the push for more equitable outcomes continues, this area very much seems to be a slow-moving ship being steered, generally toward the right heading. In some ways I have been impatient with this slow movement because I have gleaned the possible.

Despite the limitations and potential pitfalls of an over-reliance on standardized tests, they have nonetheless provided important evidence to illuminate the inequities present in schools. It has also been argued somewhat successfully that standardized tests have actually perpetuated the discrepancies and inequities they are identifying. Recently, several school boards in Ontario called on the government to pause the use of EQAO assessments because of some of their limitations, but the best way forward may be to refine rather than replace. I can see much utility in being able to monitor achievement outcomes using a wider set of disaggregating variables to help identify potentially unseen areas of inequity. The challenge will be to do so without continuing to privilege achievement over well-being, context, and asset-based factors in school improvement practices.

## Recommendations for Extending This Research

While this study developed selection criteria in using a cognitive interviewing technique in consultation with board-level leaders in equity and diversity, there was considerable inefficiency in conducting interviews with principals who were eager to participate but not always similar in their levels of data or equity literacy. Gorski's (2015) framework of developing equity literacy—recognizing, responding to, and redressing inequity—aligned well with the research questions but the range of literacy in this regard was underestimated. What this large range did show, however, was that there is a dire need to develop systematic approaches to collecting key disaggregated data and to continue to build capacity. Future research in this domain should consider casting a wider net and using

strategies to increase participation. It might also be helpful to stratify the work based on equity literacy levels because as this work found, it was one thing to notice discrepancy and quite another to makes sense of that in order to formulate a response.

Data-informed decision-making in the service of equity is a developing area of study due to the inconsistent policies, practices, and procedures in public education. The historical privileging of achievement outcomes above all other factors has concealed opportunities to intentionally attend to differences in experiences of schooling. There are an increasing set of preventable differences in outcomes that need to be acknowledged and redressed. Findings here revealed significant variances in the acknowledgement and monitoring activities of inequitable outcomes and these should be used to open up new spaces to effect change – to meet potential resistance with the evidence of inequity and with the evidence of the impact of leadership beliefs and behaviours in the service of equity. Where this study identified gaps in data and equity literacy, it will be useful work to consider these gaps as opportunities to build school administrator capacities in training and professional learning opportunities. Such work can explore more deeply the potential resistance to equity work by engaging in conversations with data that continues to consistently reveal inequities in public education in areas worthy of more attention. Once gleaned, deeply discrepant differences in outcomes and experiences of schooling cannot be ignored. They cannot be unseen. Continuing to consistently and systematically identify sources of discrepancy provides the rationale for response, the moral imperative to consider differences, to reflect on their origins, and to consider ways in which schools can rise to meet and redress them.

## Future Directions

More work can and should be done with respect to closing gaps in students' experiences and, as some principals pointed out, there is room for more guidance and support with respect to discrepancy found in schools. This is only part of the story, however, because it would be disingenuous to ignore the fact that some principals recognized discrepancy but did not see it as being important or as signaling inequity. True, there are some cases where one might appeal to other things such as developmental factors in early literacy acquisition to explain differences between boys and girls but that is not true of the vast majority of discrepancies and patterns in student outcomes that align with historical realities of oppression, power dynamics, and poverty. That is, we educators in the pursuit of equity and social justice must be careful about our own assumptions about valuing equity so that we can continue. The recent rise in populist anti-immigrant sentiment, white-nationalism, and justified racism probably not seen since the 1930s shows that the broader work in social sciences research in the past 50 years has not penetrated the mainstream. Why is that? I think everyone agrees that education has an important role to play here but perhaps the effort needs to be more sophisticated in ensuring conversations can be successfully had with both political liberals and political conservatives. With the right data, this conversation can be had by pointing out that improvement in larger subgroups of students can be a key lever of change in overall school results. But ultimately, differences in how we treat the historically disinvited will come down to our values and our ethics that are a function of education but also of our families, and communities, and our histories.

Haidt and Graham (2007) make an important point that social liberals and conservatives operate with an appeal to a distinct set of ethical virtues in deciding what is

right from what is wrong. In short, they argue that political liberals appeal primarily to virtues of fairness and care or harm avoidance, whereas political conservatives appeal to an additional three virtues: those of group loyalty, respect and authority, and appeals to purity. Political liberals tend to ignore the other three categories of ethical virtue but Haidt and Graham's point is that social justice researchers will make progress only when they understand the moral concerns of those with whom they disagree. Haidt and Graham may be right, but we will need evidence to support our beliefs so that the tools, skills, and vision of redressing inequities in systematic and consistent ways becomes possible.

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**Appendix A**

**Sample Interview Questions**

Primary Questions

1. How have informed yourself with information and data about differences between populations in your school?

2. How do you use differences in outcomes between different groups of students to support judgments and decide school needs?

3. How have you responded to between group differences? Hoe have you worked to address inequities?

Secondary Probing Questions  (Please note: these questions were not presented systematically – they are included as examples of questions that were used selectively for probing the context, if needed, in order to reach saturation on the topic only.)

1. When analyzing data, how do you best interpret results? Do you look at trends, national norms, board results, nearby school results, replica schools)

2. What does "closing the gap" mean to you? What are some of the differences in how difference groups of students experience school?

3. How comfortable are you working with data? (prompts may include, accessing, reading charts, exploring drill-downs/disaggregations).

4. Have you used data to explore relationships between data sets? For example, between achievement and climate, or between groups differences) – If so, have you found any interesting patterns?

5. Have you found any patterns in the data that have been troubling? How have you responded? Have you followed up with focus groups or conversations with students to probe further to inform the response?

6. Sometimes administrators are given access to disaggregated data on an individualized basis, and sometimes efforts have been made to provide disaggregated data systemwide (e.g., TTFM grade, gender, immigrant, program, Aboriginal-status at the 2013 Leadership Conference). Do these data confirm or discredit assumptions about students' performance and well-being between groups? Have they helped to direct resources in more particular ways?

7. Thinking specifically of "Tell Them From Me" tools, reports, and interactive charting, how have you used this computer system to inform your practices?

8. What other supports or data might be useful to help guide your school improvement decisions?

9. Is there anything else you would like to add about data availability and expectations for use in schools or in the board?

## Appendix B

## School Administrator Participant Selection Questionnaire [Online]

Beyond the surveillance activities of the accountability movement: A qualitative study of how school administrators use complementary climate and student voice data to attend to disproportionality and equity in one Ontario school board

### Background

Thank you for taking the time to participate in this research study. School administrators are in an excellent position to foster whole-school improvement strategies based on their deeply-situated and proximal understanding of their school needs, population, and context. In Ontario, building a high-performing data culture has been an important part of both school improvement mandates and of Ontario's Leadership Strategy. However, limited research exists on how school administrators systematically use complementary (non-mandated) data and evidence to identify, approach, and solve school improvement problems. Feedback received from this survey will be used to invite and select to participate in a follow up interview. Your contact information is only requested for purposes of making such contact and will never be shared or otherwise used.

The survey is designed for one administrator. Since it is expected that responsibilities for data analysis and use may be distributed in different ways in different schools, all administrator perspectives are invited regardless of whether any particular leadership initiatives fall within your particular portfolio.

### About this questionnaire

- The person who completes this questionnaire should be the principal or vice-principal in a school
- This questionnaire should take approximately 10 minutes to complete.
- This study been approved by the Social Science Research Ethics Board (SS-REB) at Brock University and by the Research Ethics Committee of the Redacted District School Board
- If you have any doubts about any aspect of this questionnaire, or if you would like more information about this study please contact:

Frank Nezavdal, PhD Candidate, T: 905 335 3663 ext. 3381 e-mail: [redacted] or Dr. [redacted], Professor

of Education

### Confidentiality

All information collected in this study will be treated confidentially. While results will be published in an aggregated and summative way, you are guaranteed the neither you, your school, nor any factors that could identify you will be identified in any report of the results of this study. Participation in this study is voluntary and you are welcome to withdraw from the study at any time without penalty or recourse. All questions are voluntary and you may choose to skip any question you do not feel comfortable answering.

## Consent to Participate in Research

Brock University's Research Ethics Board (REB) has reviewed this study and has given ethics clearance through file number 15-240. The Redacted District School Board's Research Ethics Committee has also approved of this study.

Participants may contact the Research Ethics Office (905-688-5550 x3035 or reb@brocku.ca) should you have any questions about your rights as research participants.

If you would like more information about this study you may contact me or my supervisor as noted below: Frank Nezavdal, PhD Candidate, or by e-mail: [redacted] or Dr. [redacted], Professor, Faculty of Graduate and Undergraduate Studies in Education, at [redacted].

Any information you provide is intended to provide information about those who responded in general and to recruit for suitability for a possible follow-up interview. Your responses will never be known to anyone except the primary student researcher and will be treated confidentially at all times. Your responses will not be reported in any way that could reveal anything about you and will strictly be reported in an aggregated way so as to fully protect your identity. Should you indicate an interest in further participation in an interview, you will be contacted regarding suitability and a letter of consent will be provided to you to continue. At that time, you will be notified further of the strategies used to protect identity, use of data, opportunities to check your data, as well as procedures for the safe-keeping of data. Your choice to participate or not participate will not affect your relationship with your standing with the Redacted District School Board, with me, or with Brock University. There are no direct benefits and no known or anticipated risks associated with participation in the study.

Do you agree to participate in this research?

- ☐ Yes -> proceed to questionnaire
- ☐ No -> proceed to consent

## SECTION A: Demographics

1. To begin, please select the geographic area in which you are an administrator [Actual locations redacted the in dissertation and shown here for transparency to the committee].
   - ☐ Redacted
   - ☐ Redacted
   - ☐ Redacted
   - ☐ Redacted

2. In what type of area is your school?
   - ☐ rural
   - ☐ city
   - ☐ suburban

3. Are you a:

☐ Principal
☐ Vice-principal

4. Are you:

☐ female
☐ male

5. Are you an administrator in:

☐ elementary
☐ secondary

6. How many years have you spent in an administrative role *in your current school*?

☐ Less than 1 year
☐ Between 1 and 2 years
☐ Between 3 and 4 years
☐ More than 5 years

7. How many years have you spent in an administrative role *in a public school system overall*?

☐ Less than 1 year
☐ Between 1 and 2 years
☐ Between 3 and 4 years
☐ More than 5 years

8. Have any of the factors of diversity below directly impacted you or your work (that is, have you experienced the effects of -- or devoted effort to making a difference with the following)? (Check all that apply)

☐ factors of ability, health, accessibility and accommodations
☐ factors of faith, spirituality, religious beliefs, including symbols and dress of religious or cultural significance
☐ factors related to First Nation, Métis, Inuit conditions
☐ factors related to gender, gender equity, gender expression, gender identity
☐ factors of socio-economics, financial resources, poverty
☐ factors related to ethnicity, race, including anti-racist work and bias awareness
☐ factors related to immigrants and newcomers
☐ Other, please specify:_____

9. What is the approximate enrollment at your school? _____

10. How many administrators in addition to you serve your school population?

_____

11. What is the approximate percent of your student population from the following categories? Leave blank if unknown.

| | |
|---|---|
| Aboriginal | % |
| ELL | % |
| Immigrant | % |
| Special Needs | % |
| French Immersion | % |
| Gifted | % |
| Canadian born | % |
| Other; please specify:_____ | % |

12. What degree or certificates do your hold specific to your role as principal or vice-principal? (Check all that apply)

☐ Bachelor
☐ Masters
☐ Additional Qualification(s), please specify:
_____
☐ Specialist Qualification(s), please specify:
_____
☐ Ed.D or PhD.
☐ Other, please specify:_____

13. When did you earn your last degree, certificate, or additional qualification?

☐ Within the past year
☐ Between 1 and 5 years ago
☐ Between 6 and 10 years
☐ Between 11 and 15 years ago
☐ More than 15 years

## SECTION B: Accessing, Using, and Sharing Data

14. In the past year, what types of data have you **directly accessed** (i.e. by retrieving reports, by using data search tools such as [redacted], [redacted], redacted reporting services, or by making a direct request to someone else for a particular set of data) **for cohorts or groups of students at your school** (*Check all that apply*)

   ☐ Achievement data from EQAO
   ☐ Achievement data from Report Cards
   ☐ Achievement data from other sources (e.g. PM Benchmarks, teacher/school tracked assessments)
   ☐ Demographic data from internal data sources (e.g. Trillium, [redacted])
   ☐ Demographic data from external/partner sources (e.g. Statistics Canada or Redacted Data Portal)
   ☐ School Climate data from internal sources (e.g. 'Tell Them From Me' - TTFM)
   ☐ School Climate data from external/partner sources (e.g. Redacted Youth Survey, Redacted Parent Survey)
   ☐ Process/Program data (e.g. Process Assessment Tool, Staff Learning Exit passes)
   ☐ Perceptual data from TTFM Teacher Survey
   ☐ Perceptual data from TTFM Parent Survey
   ☐ Perceptual data from your own instruments/questionnaires
   ☐ Other sources of data not listed
     Please specify:_____

15. In the past year, which of the following sources of data **have been used to set goals in your SIPSA**?

   ☐ Achievement data from EQAO
   ☐ Achievement data from Report Cards
   ☐ Achievement data from other sources (e.g. PM Benchmarks, teacher/school tracked assessments)
   ☐ Demographic data from internal data sources (e.g. Trillium, [redacted])
   ☐ Demographic data from external/partner sources (e.g. Statistics Canada or Redacted Data Portal)
   ☐ School Climate data from internal sources (e.g. 'Tell Them From Me' - TTFM)
   ☐ School Climate data from external/partner sources (e.g. Redacted Youth Survey, Redacted Parent Survey)
   ☐ Process/Program data (e.g. Process Assessment Tool, Staff Learning Exit passes)
   ☐ Perceptual data from TTFM Teacher Survey
   ☐ Perceptual data from TTFM Parent Survey
   ☐ Perceptual data from your own instruments/questionnaires
   ☐ Other sources of data not listed
     Please specify:_____

16. In the past year, which of the following sources of data **has your Superintendent inquired about or discussed with you at your school**?

☐ Achievement data from EQAO
☐ Achievement data from Report Cards
☐ Achievement data from other sources (e.g. PM Benchmarks, teacher/school tracked assessments)
☐ Demographic data from internal data sources (e.g. Trillium, [redacted])
☐ Demographic data from external/partner sources (e.g. Statistics Canada or Redacted Data Portal)
☐ School Climate data from internal sources (e.g. 'Tell Them From Me' - TTFM)
☐ School Climate data from external/partner sources (e.g. Redacted Youth Survey, Redacted Parent Survey)
☐ Process/Program data (e.g. Process Assessment Tool, Staff Learning Exit passes)
☐ Perceptual data from TTFM Teacher Survey
☐ Perceptual data from TTFM Parent Survey
☐ Perceptual data from your own instruments/questionnaires
☐ Other sources of data not listed
Please specify:_____

17. In the past year, which of the following sources of data **have been shared with school staff (e.g. at a staff meeting, in a leadership meeting)**?

☐ Achievement data from EQAO
☐ Achievement data from Report Cards
☐ Achievement data from other sources (e.g. PM Benchmarks, teacher/school tracked assessments)
☐ Demographic data from internal data sources (e.g. Trillium, [redacted])
☐ Demographic data from external/partner sources (e.g. Statistics Canada or Redacted Data Portal)
☐ School Climate data from internal sources (e.g. 'Tell Them From Me' - TTFM)
☐ School Climate data from external/partner sources (e.g. Redacted Youth Survey, Redacted Parent Survey)
☐ Process/Program data (e.g. Process Assessment Tool, Staff Learning Exit passes)
☐ Perceptual data from TTFM Teacher Survey
☐ Perceptual data from TTFM Parent Survey
☐ Perceptual data from your own instruments/questionnaires
☐ Other sources of data not listed
Please specify:_____

18. Which types of drill downs or disaggregated data about subgroups have you considered in the past year? (e.g. looked at achievement by grade, sex, or other factors). Check all that apply.
I have considered some sources of data by:

☐ by gender/sex
☐ by immigrant/newcomer status
☐ by grade
☐ by gender/sex
☐ by immigrant/newcomer status
☐ by special needs/IEP status
☐ by English/French Immersion program
☐ by self-contained (excluding gifted)
☐ by Indigenous status
☐ Other, please specify:_____

19. Have you seen any differences between groups of students or subgroups in your school data? Have you seen any differences between groups of students that may suggest inequitable conditions for some students?

[open text response]

_____

20. Follow up interviews are being scheduled. Please indicate your willingness to participate below:
☐ Yes, I would like to participate in a follow up interview.
☐ Please contact me to discuss further.
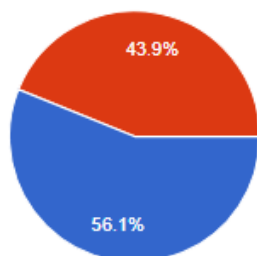☐ I am not interested in further participation at this time.

**How would you prefer to be contacted? _____**
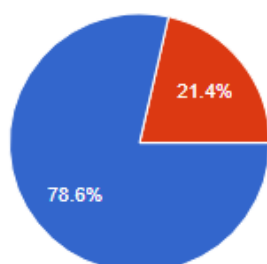
Thank you for your feedback.
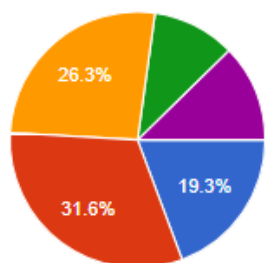
# Appendix C

# Questionnaire Summary Charts

**Are you a:**



| | | |
|---|---|---|
| Principal | **32** | 56.1% |
| Vice-principal | **25** | 43.9% |

**Are you an administrator in:**



| | | |
|---|---|---|
| elementary | **44** | 78.6% |
| secondary | **12** | 21.4% |

**How many years have you spent in an administrative role in your current school?**



| | | |
|---|---|---|
| less than 1 year | **11** | 19.3% |
| between 1 and 2 years | **18** | 31.6% |
| between 3 and 4 years | **15** | 26.3% |
| between 4 and 5 years | **6** | 10.5% |
| more than 5 years | **7** | 12.3% |

**How many years have you spent in an administrative role in a public school system overall?**
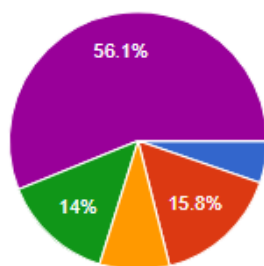
| | | |
|---|---|---|
| less than 1 year | **3** | 5.3% |
| between 1 and 2 years | **9** | 15.8% |
| between 3 and 4 years | **5** | 8.8% |
| between 4 and 5 years | **8** | 14% |
| more than 5 years | **32** | 56.1% |

**What degree or certificates do your hold specific to your role as principal or vice-principal?**
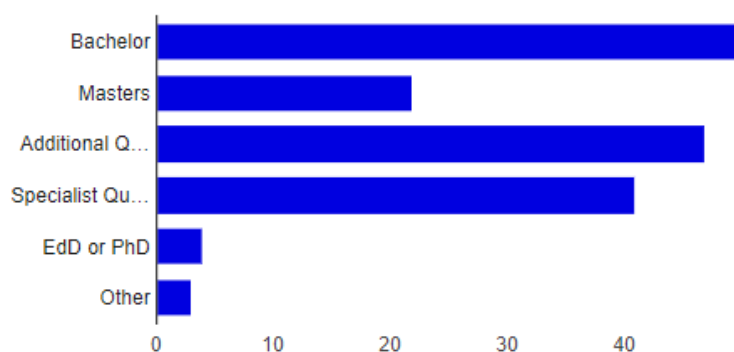
| | | |
|---|---|---|
| Bachelor | **50** | 87.7% |
| Masters | **22** | 38.6% |
| Additional Qualification(s) | **47** | 82.5% |
| Specialist Qualification(s) | **41** | 71.9% |
| EdD or PhD | **4** | 7% |
| Other | **3** | 5.3% |

**When did you earn your last degree, certificate, or additional qualification?**
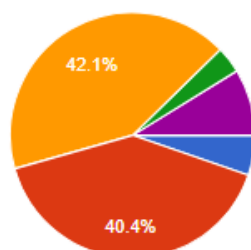


| within the past year | **3** | 5.3% |
|---|---|---|
| between 1 and 5 years ago | **23** | 40.4% |
| between 6 and 10 years ago | **24** | 42.1% |
| between 11 and 15 years ago | **2** | 3.5% |
| more than 15 years ago | **5** | 8.8% |

**Have any of the factors of diversity below directly impacted you or your work (that is, have you experienced the effects of -- or devoted effort to making a difference with the following)?**

| | | |
|---|---|---|
| factors of ability, health, accessibility and accommodations | **41** | 80.4% |
| factors of faith, spirituality, religious beliefs, including symbols and dress of religious or cultural significance | **33** | 64.7% |
| factors related to First Nation, Métis, Inuit conditions | **17** | 33.3% |
| factors related to gender, gender equity, gender expression, gender identity | **39** | 76.5% |
| factors of socio-economics, financial resources, poverty | **43** | 84.3% |
| factors related to ethnicity, race, including anti-racist work and bias awareness | **37** | 72.5% |
| factors related to immigrants and newcomers | **31** | 60.8% |
| Other | **0** | 0% |

**In what type of area is your school?**
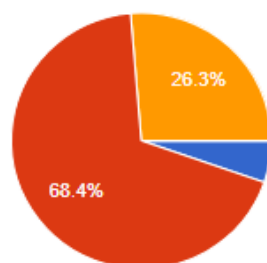


| rural | **3** | 5.3% |
|---|---|---|
| suburban | **39** | 68.4% |
| urban | **15** | 26.3% |

**First Nations/Aboriginal [What is the approximate percentage of your student population from the following categories?]**
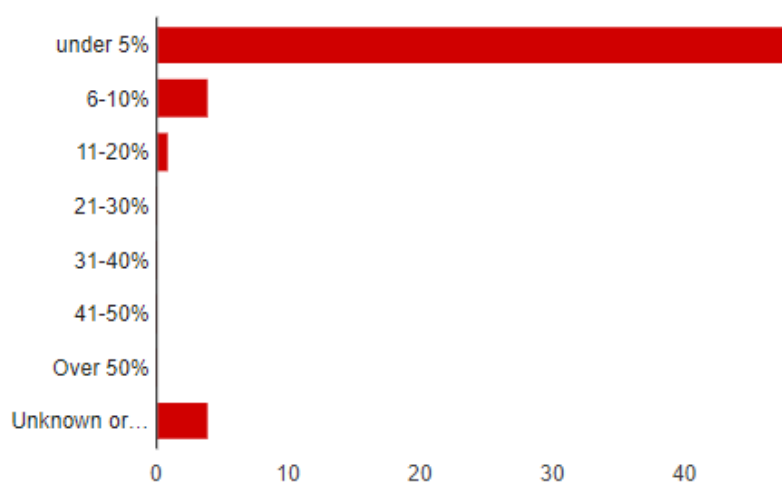
| Category | | |
|---|---|---|
| under 5% | **48** | 84.2% |
| 6-10% | **4** | 7% |
| 11-20% | **1** | 1.8% |
| 21-30% | **0** | 0% |
| 31-40% | **0** | 0% |
| 41-50% | **0** | 0% |
| Over 50% | **0** | 0% |
| Unknown or not sure | **4** | 7% |

**ELL [What is the approximate percentage of your student population from the following categories?]**
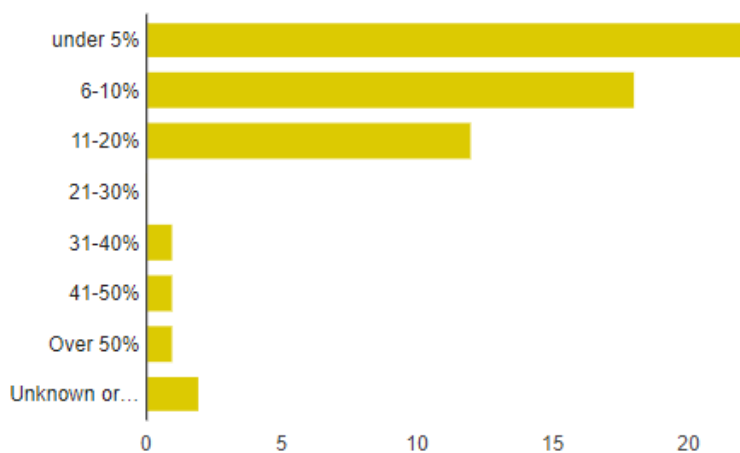


| | | |
|---|---|---|
| under 5% | 22 | 38.6% |
| 6-10% | 18 | 31.6% |
| 11-20% | 12 | 21.1% |
| 21-30% | 0 | 0% |
| 31-40% | 1 | 1.8% |
| 41-50% | 1 | 1.8% |
| Over 50% | 1 | 1.8% |
| Unknown or not sure | 2 | 3.5% |

**Immigrant/Newcomer [What is the approximate percentage of your student population from the following categories?]**
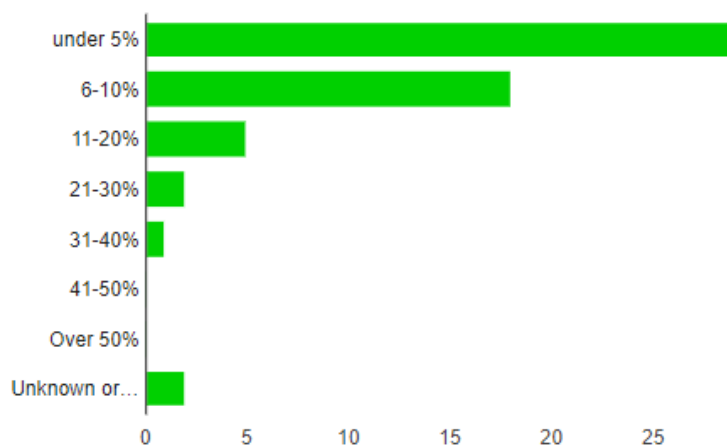


| | | |
|---|---|---|
| under 5% | **29** | 50.9% |
| 6-10% | **18** | 31.6% |
| 11-20% | **5** | 8.8% |
| 21-30% | **2** | 3.5% |
| 31-40% | **1** | 1.8% |
| 41-50% | **0** | 0% |
| Over 50% | **0** | 0% |
| Unknown or not sure | **2** | 3.5% |

**French Immersion [What is the approximate percentage of your student population from the following categories?]**
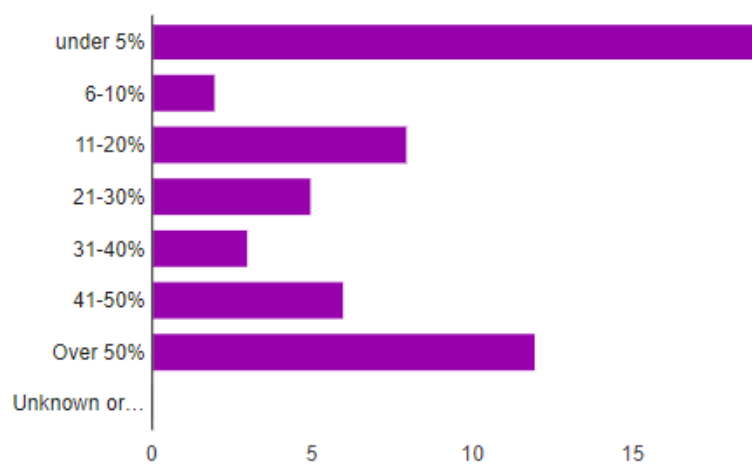


| | | |
|---|---|---|
| under 5% | **19** | 34.5% |
| 6-10% | **2** | 3.6% |
| 11-20% | **8** | 14.5% |
| 21-30% | **5** | 9.1% |
| 31-40% | **3** | 5.5% |
| 41-50% | **6** | 10.9% |
| Over 50% | **12** | 21.8% |
| Unknown or not sure | **0** | 0% |

**Special needs (excluding gifted) [What is the approximate percentage of your student population from the following categories?]**



| | | |
|---|---|---|
| under 5% | **3** | 5.4% |
| 6-10% | **22** | 39.3% |
| 11-20% | **22** | 39.3% |
| 21-30% | **5** | 8.9% |
| 31-40% | **1** | 1.8% |
| 41-50% | **2** | 3.6% |
| Over 50% | **1** | 1.8% |
| Unknown or not sure | **0** | 0% |

**Gifted [What is the approximate percentage of your student population from the following categories?]**



| | | |
|---:|:---:|:---:|
| under 5% | 33 | 61.1% |
| 6-10% | 9 | 16.7% |
| 11-20% | 4 | 7.4% |
| 21-30% | 2 | 3.7% |
| 31-40% | 3 | 5.6% |
| 41-50% | 0 | 0% |
| Over 50% | 0 | 0% |
| Unknown or not sure | 3 | 5.6% |

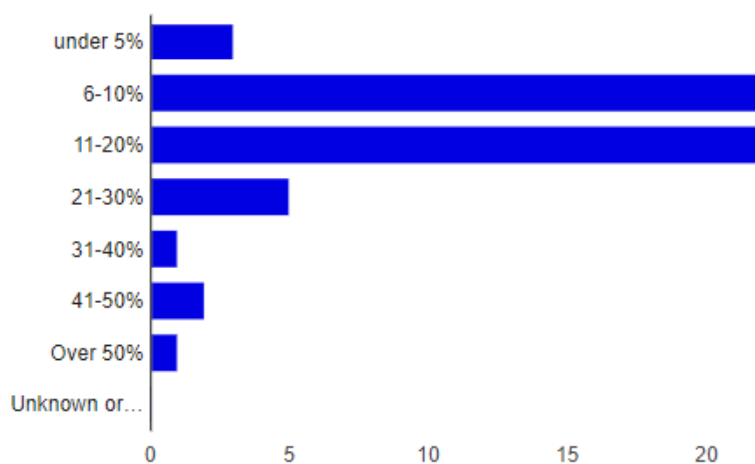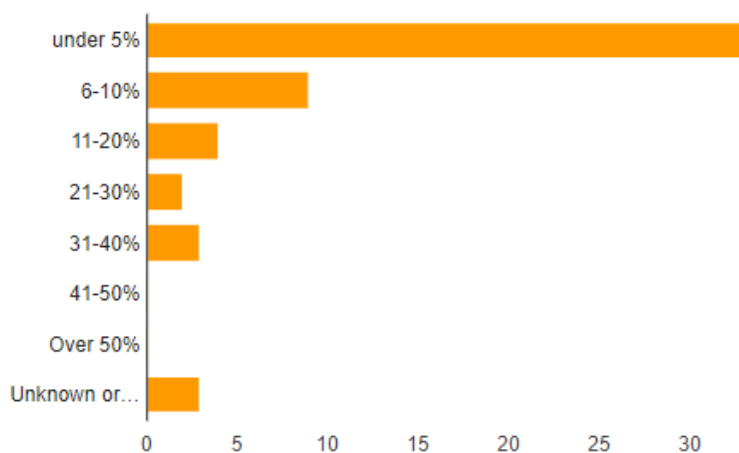**Canadian born [What is the approximate percentage of your student population from the following categories?]**
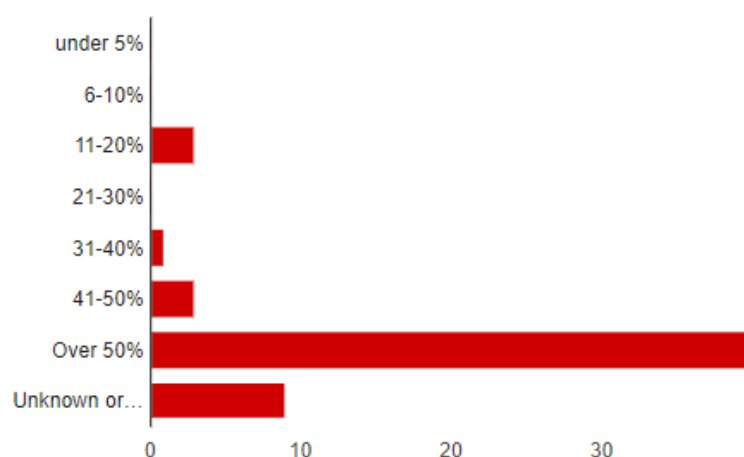


| under 5% | 0 | 0% |
|---|---|---|
| 6-10% | 0 | 0% |
| 11-20% | 3 | 5.4% |
| 21-30% | 0 | 0% |
| 31-40% | 1 | 1.8% |
| 41-50% | 3 | 5.4% |
| Over 50% | 40 | 71.4% |
| Unknown or not sure | 9 | 16.1% |

**In the past two years, what types of data have you directly accessed (i.e. by retrieving reports, by using data search tools such as                                                    Reports, or by making a direct request to someone else for a particular set of data) for cohorts or groups of students at your school**

| | | |
|---|---|---|
| Achievement data from EQAO | 55 | 96.5% |
| Achievement data from Report Cards | 54 | 94.7% |
| Achievement data from other sources (e.g. PM Benchmarks, teacher/school tracked assessments) | 46 | 80.7% |
| Demographic data from internal data sources (e.g. Trillium,          ) | 39 | 68.4% |
| Demographic data from external/partner sources (e.g. Statistics Canada or       I Data Portal) | 10 | 17.5% |
| School Climate data from internal sources (e.g. 'Tell Them From Me' - TTFM) | 57 | 100% |
| School Climate data from external/partner sources (e.g.         Youth Survey,          Parent Survey) | 33 | 57.9% |
| Process/Program data (e.g. Common Assessment Tool, Staff Learning Exit passes) | 35 | 61.4% |
| Perceptual data from TTFM Teacher Survey | 50 | 87.7% |
| Perceptual data from TTFM Parent Survey | 46 | 80.7% |
| Perceptual data from your own instruments/questionnaires | 34 | 59.6% |
| Other | 5 | 8.8% |

**In the past two years, which of the following sources of data have been used to set goals in your SIPSA?**

| | | |
|---|---|---|
| Achievement data from EQAO | **53** | 93% |
| Achievement data from Report Cards | **51** | 89.5% |
| Achievement data from other sources (e.g. PM Benchmarks, teacher/school tracked assessments) | **41** | 71.9% |
| Demographic data from internal data sources (e.g. Trillium, ) | **22** | 38.6% |
| Demographic data from external/partner sources (e.g. Statistics Canada or Data Portal) | **7** | 12.3% |
| School Climate data from internal sources (e.g. 'Tell Them From Me' - TTFM) | **51** | 89.5% |
| School Climate data from external/partner sources (e.g. Youth Survey, Parent Survey) | **15** | 26.3% |
| Process/Program data (e.g. Common Assessment Tool, Staff Learning Exit passes) | **23** | 40.4% |
| Perceptual data from TTFM Teacher Survey | **33** | 57.9% |
| Perceptual data from TTFM Parent Survey | **28** | 49.1% |
| Perceptual data from your own instruments/questionnaires | **25** | 43.9% |
| Other | **5** | 8.8% |

**In the past two years, which of the following sources of data has your Superintendent inquired about or discussed with you at your school?**

| | | |
|---|---|---|
| Achievement data from EQAO | **44** | 89.8% |
| Achievement data from Report Cards | **16** | 32.7% |
| Achievement data from other sources (e.g. PM Benchmarks, teacher/school tracked assessments) | **26** | 53.1% |
| Demographic data from internal data sources (e.g. Trillium, ) | **9** | 18.4% |
| Demographic data from external/partner sources (e.g. Statistics Canada or Data Portal) | **3** | 6.1% |
| School Climate data from internal sources (e.g. 'Tell Them From Me' - TTFM) | **30** | 61.2% |
| School Climate data from external/partner sources (e.g. Youth Survey, Parent Survey) | **4** | 8.2% |
| Process/Program data (e.g. Common Assessment Tool, Staff Learning Exit passes) | **7** | 14.3% |
| Perceptual data from TTFM Teacher Survey | **7** | 14.3% |
| Perceptual data from TTFM Parent Survey | **7** | 14.3% |
| Perceptual data from your own instruments/questionnaires | **9** | 18.4% |
| Other | **3** | 6.1% |

**In the past two years, which of the following sources of data have been shared with school staff (e.g. at a staff meeting, in a leadership meeting)?**

| | | |
|---|---|---|
| Achievement data from EQAO | **52** | 92.9% |
| Achievement data from Report Cards | **43** | 76.8% |
| Achievement data from other sources (e.g. PM Benchmarks, teacher/school tracked assessments) | **37** | 66.1% |
| Demographic data from internal data sources (e.g. Trillium,          ) | **21** | 37.5% |
| Demographic data from external/partner sources (e.g. Statistics Canada or          Data Portal) | **8** | 14.3% |
| School Climate data from internal sources (e.g. 'Tell Them From Me' - TTFM) | **51** | 91.1% |
| School Climate data from external/partner sources (e.g.          Youth Survey,          Parent Survey) | **13** | 23.2% |
| Process/Program data (e.g. Common Assessment Tool, Staff Learning Exit passes) | **27** | 48.2% |
| Perceptual data from TTFM Teacher Survey | **33** | 58.9% |
| Perceptual data from TTFM Parent Survey | **33** | 58.9% |
| Perceptual data from your own instruments/questionnaires | **25** | 44.6% |
| Other | **5** | 8.9% |

**Which types of drill downs or disaggregated data about subpopulations have you considered in the past year? (e.g. looked at achievement by grade, sex, or other factors).**

| | | |
|---|---|---|
| by grade | **52** | 92.9% |
| by sex/gender | **44** | 78.6% |
| by immigrant/newcomer status | **15** | 26.8% |
| by special needs/IEP status | **34** | 60.7% |
| by English/French program status | **19** | 33.9% |
| by self-contained (excluding gifted) | **9** | 16.1% |
| by First Nations/aboriginal status | **2** | 3.6% |
| by gifted identification | **7** | 12.5% |
| Other | **1** | 1.8% |

**Would you be willing to participate in a future interview?**
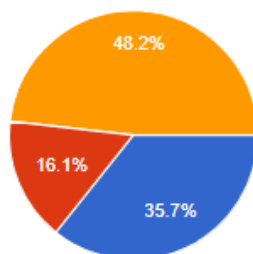


| | | |
|---|---|---|
| Yes, I would like to participate in a follow up interview. | 20 | 35.7% |
| Please contact me to discuss further. | 9 | 16.1% |
| I am not interested in further participation at this time. | 27 | 48.2% |

# Appendix D

## Summary Table of Study Findings

| Data Collection Phase | No. of Participants | Findings |
|---|---|---|
| 1. **Questionnaire data** | 57 (33 provided evidence or knowledge of discrepant outcomes; 23 either did not meet selection criteria or declined to participate in interviews) | • Data use was similar regardless of stated commitment to equity suggesting data access does not predict equity redress<br>• Noteworthy variance and lack of consistency in access, use, and response to inequity<br>• Factors of diversity impacting principal work was lowest with respect to Indigenous populations and highest with respect to ability and accessibility<br>• School Improvement Plans information reflected the frequency of data use and access<br>• Disaggregations were highest by grade (93%) and lowest by Indigenous status (4%) again suggesting availability did not predict usage<br>• About a third of principals (13 of 33) did not consider that discrepancies might signal inequity or they noted they did not see inequity<br>• Differences did not suggest inequity (attributions made other factors such as developmental difference).<br>• Stated commitment to equity did not predict equity literacy<br>• Skills in using data for equity were highly variable and unsystematic<br>• All principals selected factors underneath the questionnaire option that asked: "Have any of the factors of diversity below directly impacted you or your work (that is, have you experienced the effects of -- or devoted effort – to making a difference with the following)?" yet only 10 could identify a potential source of inequity by naming a discrepancy or discrepancy<br>• Despite tools being in place equity literacy conditions (Gorski, 2015) are largely insufficient to redress inequity<br>• Not all respondents aware of visible and invisible factors of diversity |
| 2. Interviews | 10 (about half provided solid evidence of equity literacy) | • Some principals unfamiliar with what "gap closing" meant<br>• Sometimes, even with prompts, principals' understanding of strategies and inequity was thin<br>• In spite of the availability, many do not use data at all to drive decisions |

| | | |
|---|---|---|
| | | <ul><li>Independently, principals were able to cite specific examples of inequities (e.g. "most students who have lower achievement in Math are female," and "French immersion students have higher literacy scores."</li><li>Principals questioned the cause of some differences (e.g. Nancy, who "wonders when we see differences. Was it the group, Was it the teachers, The school climate?"</li><li>There were some unexpected respondents (both those who took up invitation for interview, and those who declined) that in itself had implications: those who had equity literacy did not necessarily wish to share their expertise, and those who wanted to share what they knew had a wide variance of expertise or lack thereof</li><li>There is a relationship between positive and negative assets that is noted by principals, supported by Scales' (2005) finding</li><li>Boys over-represented in self-contained classes, both in Behaviour classes and Gifted identification</li><li>High variance of data and equity literacy</li><li>There was some awareness of broader trends and patterns in the literature</li><li>There is some evidence that differences in discrepant outcomes are becoming a focus of school improvement</li><li>Principals who were leading for equitable purposes seemed to de-emphasize the focus on standardized testing, particularly EQAO</li><li>Those with a higher equity literacy seemed able and willing to share their own experiences to illustrate</li><li>Principals showed explicit commitments to equity when they connected that work to their own stories and lead based on lived experience</li><li>Some emphasized non-achievement factors, such as relationships</li><li>Some were able to discern between visible and invisible factors of inequity</li><li>Some emphasized context and made a concerted effort to engage staff with the environment of the school (in terms of diversity)</li><li>Several referenced that equity work faced various resistances, sometimes from staff, sometimes from parents</li><li>Inadequacy of achievement and understanding equity</li></ul> |

| | | |
|---|---|---|
| | | • Use of comparative data, contextual data, and a certain savviness with data seemed also to correlate with the ability to engage with equity<br>• Some noted limitations of and distrust of EQAO<br>• Use of "softer" well-being-asset data was valued by those more committed to equity<br>• Some principals were very adept at retrieving assets-based data (e.g. Linda p. 129) to reveal the shortcomings of EQAO<br>• Those who have greater capacity for doing equity work are resourceful and creative in finding information to help them understand differences and differing needs (e.g. cheques that bounce, attendance patterns<br>• In their resourcefulness, they seem to be non-systematic about it—a little bit ad hoc (and therefore non-transferrable)<br>• General lack of knowledge, not just in terms of data literacy and skills, but there's also a lack of support (principals want support)<br>• Principals felt like they were lacking some skills in response to needs—they have high confidence with regards to curriculum needs<br>• They took an asset-based stance, as opposed to a deficit-based stance with higher equity literacy<br>• Compassion and empathy were visible in their anecdotes—seemed to suggest moral purpose<br>• There was less blame, and a pattern of looking at need as something that could be addressed through shaping students' experiences<br>• Higher equity literacy signaled a more holistic approach<br>• Some noted a lack of direction and a lack of mandate<br>• Although equity was valued and in view in most of the interviews, it was not clear that all factors of inequity were considered or that all aspects of inequity were, therefore, able to be addressed<br>• Stated beliefs and good intentions was not enough to produce evidence that the required actions were being taken<br>• There was a desire for guidance, and assistance<br>• Had an ability to recognize staff and own shortcomings in terms of non-curricular skills and were willing to ask for help in meaning-making and direction<br>• Identified a curricular emphasis<br>• Payed attention to cultural factors |

| | | |
|---|---|---|
| | | <ul><li>Noteworthy lack of mandate among those more committed to redressing inequity</li><li>Not all respondents aware of visible and invisible factors of diversity</li><li>Evidence of distrust in some principals revealing bias or leading to a dismissal of the meaning of differences. Distrust appeared both with respect to EQAO which was expected but also with respect to TTFM, perhaps with data more generally.</li></ul> |