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The Relationship Between School Leaders' Behaviors and Teachers' Perceptions of their Value in Promoting A Culture of Inclusive Education

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THE RELATIONSHIP BETWEEN SCHOOL LEADERS' BEHAVIORS AND TEACHERS' PERCEPTIONS OF THEIR VALUE IN PROMOTING A CULTURE OF INCLUSIVE EDUCATION

Abstract

One of the most critical factors in changing teachers' attitudes toward inclusive education practices is the way in which the school leader, that is a principal or vice-principal, actively and consistently demonstrates a positive attitude towards an inclusive school culture (Leithwood, Begley, & Cousins, 1992). Teachers may view the behaviors of school leaders with a positive attitude as evidence of support for an inclusive school culture that values the ethics of care and concern for all members of the school community (Shapiro & Gross, 2008). Specific types of behaviors by leaders may be more important than others in assisting teachers to develop their own attitudes concerning inclusive education.

This convergent parallel mixed-methods study was designed to permit a comparison of rural Ontario elementary school leaders and teachers in a) their attitudes toward teaching students with mild to moderate disabilities and b) their perceptions of the value of school leader behaviors that support inclusive practices. Attitudes were assessed using the Attitudes Toward Teaching All Students with Mild to Moderate Disabilities instrument (Gregory & Noto, 2012). School leaders' behaviors were rated using items from the Louisiana Validated Practices Initiative (Louisiana Department of Education, 2005). A positive association was observed between participants' attitudes and their ratings of the importance of specific behaviors of school leaders. Some behaviors such as those that support collaboration were valued by both teachers and leaders. Other leader

behaviors such as advocacy efforts and actions to implement inclusive education as a school improvement initiative were valued highly by school leaders, but less so by teachers.

Responses to an open-ended question soliciting reasons why leader behaviors are important were assessed using keyword in context analysis to observe common patterns and themes. School leaders' comments were related to the social justice foundations of inclusive education, while teachers' comments related more to behaviors that support the practical implementation of inclusive education practices. The results of this study may assist school leaders to become aware of those behaviors that are most valued by teachers and other school leaders. In particular, school leaders may be able to focus their efforts on behaviors that are most important for teachers whose attitudes toward inclusive education may differ from theirs.

Keywords: Inclusive education; teachers' perceptions; school leaders' behaviors

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The Relationship between School Leaders' Behaviors and Teachers' Perceptions of their Value in Promoting a Culture of Inclusive Education

CHAPTER 1

Teachers in many classrooms in Ontario schools are welcoming students from an ever-increasing range of abilities, behaviors, and cultural backgrounds (Ontario Ministry of Education, 2009). This diversity has occurred as a result of changes in the demographics of both urban and rural communities and changes in societal attitudes toward increasing the participation of people with disabilities. Canada was one of the first countries in the world to guarantee the rights of people with disabilities in its Constitution (Hutchinson, 2002), and the province of Ontario has identified schools as eligible service providers in the *Accessibility for Ontarians with Disabilities Act*, (Ontario, 2005).

The Ontario Ministry of Education guideline, *Equity and Inclusive Education Strategy* (Ontario Ministry of Education, 2009), laid out a detailed plan for implementation of inclusive education policies over a four-year period, which culminated in the 2011-2012 academic year. In September of 2012, the *Accepting Schools Act*, which amended the *Education Act* (Ontario, 1990), came into force. The Act built on the success of the 2009 strategy, mandating the involvement of all partners (parents or guardians, students, teachers, administrators, support staff) to bring about necessary systemic change to foster safe, caring, inclusive and accepting learning environments. "Accepting learning environments" implied that every student would be supported and inspired to succeed in a culture of high expectations for learning (Ontario Ministry of

Education, 2009, p. 10). At the heart of this legislation is the core value that all students would be welcomed, feel safe, and have a sense of belonging to the school community and be free from exclusion or harassment because of differences in ability or characteristics. Through this legislation, members of the wider community rely on schools to reflect the ideals of a socially just society by educating all children equitably; that is, in a "condition or state of fair, inclusive and respectful treatment" (Ontario Ministry of Education, 2009, p. 4).

Although school leaders in Canada have expressed a positive attitude towards the principles of inclusive education, teachers have been somewhat more tentative (Lupart, Whitley, Odishaw & McDonald, 2005). A significant number of practicing teachers in Ontario, as well as graduating teachers from faculties of education across Canada, have indicated that they are willing to accommodate a diversity of students in their classrooms, but they have also expressed concerns about their abilities to create a truly inclusive learning environment (Gokdere, 2012; Specht & Bennett, 2014). It can be challenging for teachers at all levels of experience to set aside traditional methods of instruction in favor of those that provide a more differentiated approach to meeting all students' needs and which create an optimal environment for their learning (Katz, 2013a).

Changing one's teaching behavior is complex and occurs as a result of several environmental as well as cognitive factors. This complexity is reflected in Ajzen's (1985) theory of planned behavior change; he has proposed that this change occurs chiefly as a result of the interaction between one's attitude towards the outcome of the behavior, the perceived norm in the surrounding environment, and one's sense of control

or efficacy in performing the behavior. In schools where the culture is evolving to espouse the values of inclusive education practice, it may not be enough for teachers or leaders merely to believe in the need for an inclusive culture at their schools; it is also critical for school leaders to behave in a manner that supports the development of teachers' attitudes, reinforces inclusive school culture as the organizational norm, and creates the conditions for teachers to gain confidence in their ability to reflect the culture in their own teaching.

No one particular style of leadership appears to be more effective than another for principals to adopt to establish and sustain a culture of inclusive education at their schools (Ryan, 2007), although the values of a transformational leadership style seem to be the most closely aligned with the social justice principles of the inclusive education movement (Leithwood, Jantzi, & Steinbach, 1999; Shields, 2004). Bass (1995) has defined a transformational leader as "someone who raised [staff] awareness about issues of consequence, shifted them to higher-level needs, influenced them to transcend their own self-interests for the good of the group or organization, and to work harder than they originally had expected" (p. 29). Transactional leadership on the other hand is contingent chiefly upon providing rewards for services rendered (Burns, 1978).

Although the outcomes of transformational leadership as listed by Bass describe a style that may indeed lead to improved performance, the most effective method for leaders to apply these to changing a school culture remains somewhat elusive for those wishing to create and sustain inclusive schools. Storey (2004) is critical of the literature that points to the distributed or shared style of leadership as best practice when it is

"couched in terms of some fairly simple polarities: managers versus leaders, transactional versus transformational leaders, task-focused versus people focused…" (p. 249). Others have concurred, proposing that one's actual leadership may reflect a continuum of styles ranging from transactional to transformational, depending upon the demands of the particular situation (Bass, 1995; Bass, Avolio, Yung, & Berson, 2003; Stewart, 2006). Thus, the quest for evidence of a particular leadership style that supports the development of an inclusive culture may not be as informative as examining specific characteristics of leadership behaviors that are critical elements in changing the culture of an organization.

Background for the Study

A number of researchers have noted occurrences of some common behaviors by principals in schools and school districts that were establishing or maintaining an inclusive school culture. These include involving teachers in decision making (Daly, 2009; Datnow & Castellano, 2003; Finnan & Meza Jr., 2003; Hoppey & McLeskey, 2010), creating professional learning communities or opportunities for inquiry and increased collaboration among teachers (Irvine, Lupart, Loreman, & McGhie-Richmond, 2010; Sindelar, Shearer, Yendol-Hoppey, & Liebert, 2006; Theoharis & Causton-Theoharis, 2008; Udvari-Solner & Keyes, 2000), and providing an environment for teachers to maintain autonomy in their own classrooms (Datnow & Castellano, 2003; Udvari-Solner & Keyes, 2000). These behaviors, however, are not unique to the establishment of an inclusive school culture; they easily could be ascribed to leaders of successful schools in general (Lunt & Norwich, 2008).

Although a number of good general leadership behaviors may appear across these studies, there is a critical difference between those that may improve existing school programs and those that will profoundly transform the culture (Leithwood, Begley, & Cousins, 1992). As with any organizational change, it is the underlying or tacit shared values and beliefs that must be articulated and critiqued; this activity is fundamental to any subsequent change in behavioral norms (Lewin, 1958; Schein, 2010; Senge, 2006).

Improving a school program involves changing assumptions about how teaching practices may achieve improved student learning outcomes; however, establishing a new school culture may demand additional inquiry about how some practices may actually interfere with those outcomes. For example, Weiner (2006) challenges the "pervasive assumption that when students misbehave or achieve poorly, they must be 'fixed' because the problem inheres in the students . . . not in the social ecology of the school, grade or classroom" (p. 42). Weiner (2006) cites one case in which a child wandered around a classroom during whole-class instruction; numerous attempts by the teacher to correct or ignore the behavior failed. When the school leader challenged the teacher to reframe the wandering as a positive attribute of the child, she accommodated the behavior by setting clear rules about where within the class it was acceptable to wander and when to return. The teacher in Weiner's (2006) study reported that the "reframing changed my negative, critical attitude . . . to a positive, supportive outlook" (p.44). Wolfensberger's (1975) principle of normalization suggests that all persons regardless of ability should live and learn in environments as close to normal as possible, and everyone should be viewed primarily in terms of the ways in which they are the similar to others, rather than

in how they differ (Wolfensberger, 1975). As a result of examining her assumptions, the teacher in Weiner's (2006) study was better able to incorporate the student's wandering as evidence of a normal energetic nature, rather than focusing solely on reducing the activity as a perceived deficit in the child.

Advocates of inclusive education have challenged some widely accepted assumptions about the outcomes of current teaching practices. Oakes (2005) points to the ubiquitous practice of "tracking" students, or assigning students to groups based on their perceived abilities, and the assumption that tracking is "best for students" (Oakes, 2005, p. 6). She questions the evidence and beliefs underlying this assumption and encourages educators to question whether tracking is successful in achieving the overall goals for students' education. She points to the research which indicates that "homogeneous grouping doesn't consistently help *anyone* [emphasis in text] learn better" (Oakes, 2005, p. 7). In fact, Oakes (2005) notes the number of studies that have found the learning of average and slow students to be negatively affected by homogeneous placements. She also discusses the assumption that heterogeneous groupings would negatively affect the self-esteem of lower-achieving students, noting that students in low-achieving group placements not only develop lower self-esteem, but they also develop lower aspirations. Tragically, these are the students who tend to participate less in extracurricular activities at school, which may exacerbate their alienation and feeling that they do not belong in their school. Oakes concludes this discussion by noting that "rather than alleviate attitude and behavior problems, as educators intend, tracking seems at least in part to contribute to them" (p. 9). School

leaders may be well positioned to initiate discussions that encourage critical reflection about how well teaching practices align with common goals or outcomes of education.

The Role of Beliefs, Attitudes and Behavior in Culture Change

If educators' attitudes are powerful drivers of their decisions about teaching practices, such as ability groupings which can affect student learning outcomes, it is important to examine the components of attitude and how these interact to create, maintain, or change those practices. Hogg and Vaughan (2005) have described attitude as a "relatively enduring organization of beliefs, feelings, and behavioral tendencies towards socially significant objects, groups, events or symbols" (p. 15). Eagly and Chaiken (1993) note that attitudes can be inferred through articulated beliefs, feelings, and behavioral tendencies as responses that demonstrate an evaluation of an object with some degree of favor or disfavor (p. 1). McLeod (2014) uses spiders an example of an attitude object to illustrate how the components of attitude interact:

> **Affective component**: this involves a person's feelings / emotions about the attitude object. For example: "I am scared of spiders".
>
> **Behavioral** (or conative) component: the way the attitude we have influences how we act or behave. For example: "I will avoid spiders and scream if I see one".
>
> **Cognitive** component: this involves a person's belief / knowledge about an attitude object. For example: "I believe spiders are dangerous". (para. 3)

McLeod (2014) refers to this as the ABC model of attitudes; however, it appears that these components could contribute to attitude formation in any sequence. If someone knows that a spider bites, he or she may believe it is dangerous. This may well elicit an affective fear response, which may then be outwardly observed in avoidance or panic

behavior at the sight of a spider. The inferred attitude then is that spiders are an unfavorable object and are conducive to the instinctive urge for self-preservation.

Anything that is discriminable can be evaluated and function as an attitude object (Eagly & Chaiken, 1992, p. 5). Therefore the behavior of others, such as school leaders, can also serve as an attitude object, and teachers' evaluative responses to that behavior might indicate their attitude toward that behavior is favorable or unfavorable. Although the research by Specht and Bennett (2014) shows that a majority of teachers in Ontario have the desire to accommodate students of all abilities in their classrooms, these teachers may need active support from their leaders to believe that they can successfully translate that desire into creating an inclusive learning environment. Ultimately, a school leader's support behaviors will be evaluated by teachers as either beneficial or detrimental to their goal of successfully creating that environment for their students, thus contributing to their overall attitude towards inclusive education. Figure 1 in Appendix A outlines the process of attitude formation as it may apply to the relationship between school leaders' attitudes and behaviors, and teachers' attitudes and behaviors concerning inclusive education practices. As with McLeod's model of attitude formation, the model of the attitude formation and inter-relationship between leaders and teachers is a somewhat reciprocal process, whereby the attitude and behavior of school leaders affects teachers' attitudes, which may in turn sustain the leader's attitude and behaviors.

Statement of the Problem of Practice

One of the most critical factors in supporting the development of teachers' attitudes toward inclusive education practices is the way in which the school leader

actively and consistently demonstrates a positive attitude towards an inclusive school culture (Leithwood, Begley, & Cousins, 1992). This attitude is inferred by behaviors that support this culture. Specific types of behaviors by leaders may be of particular value to teachers in confirming the leader's attitude and commitment to the new culture. These behaviors may be the ones that reassure teachers of the value of examining their own attitudes toward inclusion and perhaps, reframing their practice to reflect this culture. If school leaders become more aware of behaviors that are of the most value to teachers as supportive of the new cultural norm of inclusive education, they may be better equipped to focus their time and energy on behaviors that are most important for their teachers, and especially for those teachers whose attitudes may be evolving.

Purpose of the Study

The proposed study was designed to permit an investigation of differences between rural elementary school leaders and teachers in their attitudes towards inclusive education and in their perceptions of the value of behaviors that demonstrate a leader's level of support for an inclusive school culture. Participants' attitudes toward inclusive education and their perceptions of the importance of leader behaviors that support inclusive practices were also examined in this study to ascertain whether differing attitudes toward inclusive education practice are associated with differing perceptions of the value of school leaders' behaviors that support the development of inclusive education practice.

Theoretical Framework

There are several dominant theories about the components of sustained cultural change within organizations. One of the most prevalent of these is the theory of planed behavior suggested by Ajzen (1985, 1991). Ajzen's theory of planned behavior suggests that the performance of any behavior is determined by three conceptually interdependent factors:

1. The person's attitude toward the behavior.
2. The subjective norm surrounding the performance of the behavior.
3. The amount of perceived behavioral control the person has over the behavior in question.

These may be described respectively as the intention to perform or enact a behavior as a result of positively or negatively evaluating the outcome of performing of the behavior; by perceiving legitimate social influence to perform the behavior; and finally by perceiving or experiencing some degree of actual control over the behavior. This theory expanded upon an earlier theory of reasoned action (Ajzen & Fishbein, 1980) which explored the extent to which an individual's intention to adopt a behavior is determined by his or her attitude toward the behavior and the perceived or subjective social pressures from "important others [who] think they should perform it" (Ajzen, 1985, p. 12).

The revised theory addressed the degree of perceived control of the behavior of participants as a continuum between the points of high individual control and lower control, depending on the resources, opportunities, and skills required to enact these (Eagly & Chaiken, 1993). Research has shown that even teachers who have a positive

attitude towards inclusive education practices are hesitant to commit to these practices because of uncertainty about the availability of needed resources and their own skill levels (Avramidis & Norwich, 2002; Lupart, Whitley, Odishaw & McDonald, 2005). It is quite likely that teachers will place a high degree of importance on the actions of the school leader as an "important other" to support their level of confidence in the outcome of adopting inclusive education practices themselves.

Stanovich and Jordan (1998) conducted a study of the attitudes of teachers and principals in twelve Canadian schools to determine the degree to which the factors in Ajzen's (1985) theory could help predict the performance of teacher behaviors associated with effective teaching in heterogeneous classrooms. These authors conceptualized Ajzen's three factors of attitude, subjective norm, and behavioral control respectively as (a) "teachers' beliefs about students with special needs and their inclusion in general education; (b) principals' beliefs about inclusive practice in their schools; and (c) teachers' sense of efficacy" (Stanovich & Jordan, 1998, p. 222). They found that "the strongest predictor of effective teaching behavior was the subjective school norm as operationalized by the principal's . . . attitudes and beliefs about heterogeneous classrooms and his or her reports of the school's interventionist orientation" (Stanovich & Jordan, 1998, p. 221). An interventionist orientation is based on the assumption that students' learning success occurs as a result of targeted interactions between the student and the instructional environment (Stanovich & Jordan, 1998). However, there is not as yet a clear indication of the most effective strategies that are employed by these

principals to demonstrate the depth of their belief to their staff and, by extension, the legitimacy of the school's overall inclusive culture.

If school leaders' attitudes are a strong predictor of behaviors by teachers, then more specific information is needed about how leaders' attitudes are reflected in their behaviors and how these behaviors may be interpreted by teachers, especially those who differ from the school leader in their attitude towards inclusive education.

Research Questions

The proposed study was designed to investigate the degree of difference between the attitudes of rural elementary school leaders and teachers towards inclusive education and also in their ratings of the importance of specific leader behaviors that demonstrate his/her support of inclusive education practices. The strength of relationship between teachers' and school leaders' attitudes toward inclusive education and their perceptions of the importance of specific leader belief behaviors was explored by addressing three questions:

1. Is there a difference between elementary school leaders and teachers in rural southwestern Ontario in a) their attitudes toward inclusive education practice, and b) their perceptions of the importance of leaders' support behaviors that demonstrate his or her level of commitment to an inclusive school culture?
2. Is there an association between all participants' attitudes toward inclusive education practice and their perceptions of the importance of the leaders' support behaviors?
3. What are the common or divergent themes among school leaders and teachers' underlying reasons for valuing leaders' support behaviors?

Expected Outcomes

The role of school principals and vice-principals is a multi-faceted one and demands much from those who lead their schools through a change. This study will assist these school leaders to become more aware of those behaviors that are valued by teachers as indicators of a new cultural norm. In particular, school leaders may become better equipped to focus their time and energy on specific behaviors that are most important for teachers whose attitudes towards inclusive education practice may be evolving.

Definition of Key Terms for the Study

Important Concepts. There are a number of different interpretations of the terms "inclusive education", "culture", "inclusive school culture", **"**attitudes", "beliefs**"** and the types of school leadership "behaviors" that relate specifically to demonstrating the depth of their commitment to inclusive education. It is important to define these terms and present a clear picture of the inclusive school culture that teachers and principals are working to achieve in Ontario.

Inclusive education. Perhaps the most all-encompassing definition of inclusive education appears in *The Index for Inclusion* compiled by Booth and Ainscow (2002): "Inclusion in education involves increasing the participation of students in, and reducing their exclusion from the cultures, curricula and communities of local schools" (p. 3). Coupling this definition with the Accepting Schools Act (2012) in Ontario, it can be understood that no one should be excluded from membership in a classroom with age-appropriate peers in their local school based on differences in their ability or

characteristics. Of particular focus in this study is the inclusion of students with "high incidence disabilities" such as those who may be gifted or developmentally advanced; those with learning disabilities or differences in information processing that are not due to physical, emotional, or cultural disadvantage; those who demonstrate a persistent pattern of inattention and impulsiveness that may be accompanied by hyperactivity; those whose speech or language may interfere with expressive or receptive communication; those who have difficulty forming or maintaining interpersonal relationships with peers and teachers; and, those who have below-average intellectual functioning and adaptive behavior (Hutchinson, 2002, p. 65).

Inclusive school culture. Schein defines culture as "the foundation of the social order that we live in and of the rules we abide by" (Schein, 2010, p. 3). Schein (2010) elaborates on the concept of culture as norms that are developed by a group which "gradually become tacit assumptions" (p. 104). Ideally, staff working within a culture or environment of inclusive education at a school would share assumptions around the social justice beliefs of the worth of all persons and their right to equal treatment and access; these beliefs would be more or less automatic and assumed and would be reflected in all of the actions and statements of the members of this group, inside and outside of the classroom and the school. If the principles of inclusive education practice have been mandated by a school district, these will need to be genuinely accepted and exhibited at the school level by the principal who models the principles and underlying values to be shared by all members of the school community. Within the overarching

social justice beliefs, there are some specific characteristics of a culture of inclusive education.

Characteristics of schools with an inclusive culture. On its web site, the Canadian Association for Community Living (CACL) summarizes the key characteristics of inclusive schools: "Inclusive education means that all students attend and are welcomed by their [neighborhood] schools in age-appropriate, regular classes and are supported to learn, contribute and participate in all aspects of the life of the school" (CACL, 2014). In inclusive schools, the norm is that students of all abilities receive instruction that addresses their particular learning needs. Hutchinson (2002) elaborates on this concept, observing that educators "are expected to teach exceptional children and adolescents the same kinds of knowledge and skills [as] all other students but in ways that are meaningful to them" (p. xxi). Therefore, children with physical, cognitive, or behavioral challenges are not merely "present" in the building; rather, all students enjoy a supportive environment; positive, authentic relationships with others; and, feelings of competence. An inclusive school culture implies the existence of a system of shared beliefs and practices. Not only is it important for teachers and principals to believe in inclusive education practices as an ethical stance, but according to Ajzen's (1991) theory of planned behavior change, it is also essential that these beliefs are part of the subjective norm as enacted through supportive actions and behaviors of school principals as well as teachers.

Attitudes and beliefs. Eagly and Chaiken (1993) have defined attitude as "a psychological tendency that is expressed by evaluating a particular entity with some

degree of favor or disfavor" (p. 1). Evaluation in turn is described as the "imputation of some degree of goodness or badness to an entity" (Eagly & Chaiken, 1993, p. 3). Entities or attitude objects can be "virtually anything that is discriminable" (p. 4) such as the concept of inclusive education or even behaviors or classes of behaviors. Attitudes themselves are not directly observable but can be inferred from observable responses expressing a degree of evaluation.

Social scientists have generally assumed that responses expressing evaluation and therefore people's attitudes fall into three categories: cognitive, affective, and behavioral (Katz & Stotland, 1959; Rosenberg & Hovland, 1960, as cited in Eagly & Chaiken, 1993, p. 10). The cognitive category contains thoughts that people may have about the attitude object. Affective responses or attitudes consist of feelings or emotions concerning the object, and the behavioral responses include actions that people take with respect to the attitude object. Eagly and Chaiken (1993) refer to the term "belief" to describe all thoughts or associations that people may create between the object and its various attributes. In general, people who favorably evaluate an attitude object, such as inclusive education, will tend to associate the object with positive attributes or have positive beliefs about it. Models of the assumed relation between people's evaluation of attitude objects and their beliefs about these objects have been the focus of much research (Ajzen & Fishbein, 1980; Kerlinger, 1984). In the present study, a possible relation is explored between the evaluations or attitudes of school teachers and leaders towards teaching students with mild to moderate disabilities and their beliefs concerning the importance of a leader's specific support behaviors as indicators of the strength of a

culture of inclusive education practice.

Leader behaviors. James Ryan (2007) conducted a comprehensive review of the literature on inclusive leadership in which he devoted a section to leadership approaches that can achieve inclusion for differently abled students. He stated that "the success or failure of inclusion efforts in school will depend, to some extent, on the beliefs and actions of administrators [school leaders]" (Ryan, 2007, p. 114). Ryan proposes that leadership style or philosophy is less important than school leaders' activities around gaining support for inclusive education practices. These activities include promoting inclusion as a "non-negotiable option", engaging in dialogue with others to develop a shared "rationale" for inclusive education, involving teachers and parents in setting clear objectives for supporting all students, and creating a sense of urgency by questioning the effectiveness of non-inclusive teaching (Ryan, 2007, p. 114). These examples provided by Ryan (2007) are somewhat compatible with the areas of focus for school and system leaders as indicated in the Ontario Ministry of Education (2013) publication titled *A Reflective Tool for School and System Leaders on the Implementation of Ontario's Equity and Inclusive Education Strategy* (Ontario Ministry of Education, 2013). This tool is comprised of six questions under each of nine broad areas of focus to assist school leaders to articulate how they are implementing the equity and inclusive education strategy. Areas of such implementation include committing to and supporting board policies, sharing leadership and valuing others' contributions, objectively gathering and evaluating information, and arranging for appropriate resources and development opportunities. Therefore, for the current study, leader behaviors that demonstrate a belief

in a culture of inclusive education have been interpreted as overt statements or actions of the principal that “mobilize support for inclusion” including, but not limited to, those examples provided by Ryan (2007).

Summary

There is a positive attitude toward the principles of greater inclusion in Canadian society in general and within schools in the province of Ontario in particular. However, teachers may need to see evidence of the evolution of a culture of inclusive education in their schools, particularly through the school leaders’ behaviors. This study was designed to examine an association between teachers’ and school leaders’ attitudes toward inclusive education and the perceived importance of specific leader behaviors that are most important in guiding school community members successfully through the process of accepting a culture change. The next chapter will provide a review of the relevant literature on leadership within the context of successful implementation of organizational culture change.

CHAPTER 2

Literature Review

Overview of the Literature Topic and its Significance

The role of the leader in legitimating a new cultural norm is a component of some well-known theories of change. This literature review first situates the school leader's role within the context of these theories as an agent of change and specifically, as a strong influence in shifting the culture of an organization such as an elementary school toward inclusive education practices. Following the examination of the school leader's role, a summary of research is provided which explores leaders' behaviors in supporting culture change and teachers' perceptions of the value of these behaviors. This summary identifies those actions of leaders that may be most critical at certain points in the change process and describes elements of research that may extend the knowledge gained from these existing studies.

Theories of Change and the Role of a School Leader

Several theories of change share some structural as well as conceptual features. Each of the conceptual features has implications for a leader's role within the various stages of the change process. Ajzen's (1985) theory of planned behavior explores the interplay of three factors which include the consideration of an individual's attitude towards the behavior or practices in question, responses to the influence of the social environment or subjective norm, and an assessment of one's efficacy or perceived ability

to perform the desired behavior. In this theory, the cultural or subjective norm refers to the "individual's perception of the general pressure to perform the behavior" (Ajzen, 1985, p. 12). The pressure for a teacher to embrace the norms of inclusive education practice might be perceived to be situated within the school leader's behaviors, in the expressed values of the wider community, or within the changing values of a teacher's own colleagues or professional group. The theory emphasizes the interdependence of the three factors concerning one's attitude, subjective norm, and degree of perceived control over the ability to perform the new behavior. One's intention or motivation to perform a behavior depends on his or her attitude toward the behavior; this is determined by a person's evaluation of the outcomes associated with the behavior and the perception of the subjective norm surrounding it (Ajzen, 1985).

As in Ajzen's theory, Kurt Lewin's (1958) model of change also refers to three stages, which involve the motivation or disposition toward the change (unfreezing), the learning of new concepts and new standards for judgment (moving), and internalizing those new concepts and standards as positive contributors to one's self-image (refreezing). The first stage of Lewin's model, which is the motivation to change, in turn, involves three aspects: "(a) disconfirming data to cause serious discomfort and disequilibrium; (b) the connection of the disconfirming data to important goals and ideals, causing anxiety . . . and (c) enough psychological safety in the sense of being able to see a possibility of solving the problem and learning something new without loss of identity or integrity" (Lewin, 1947, cited in Schein, 2010, p. 301). Schein draws on his extensive research of the culture of large corporations and he believes that much learning

and change begins with "some form of dissatisfaction or frustration generated by data that disconfirm our expectations" (Schein, 1995, p. 3). This view is supported in the guiding principles of theorists such as Piaget (1970) and Vygotsky (1978).

According to Piaget's (1970) theory of cognitive development, actual changes in thinking occur through the process of equilibration or the act of searching for a balance. Using teaching practice as an example, if a teacher's traditional approach to teaching is producing the desired result, which may be that all the students are achieving an acceptable standard of learning, then equilibrium exists. If, however, these results are not obtained, a teacher may be dissatisfied with the status quo and could be ready to consider using a new strategy that might achieve the desired result. At this point, a teacher may need encouragement from the school leader and assurances that taking the risk of being critical about one's own teaching style would be considered a positive activity. Schein (2010) concludes that "a learning culture must therefore value reflection and experimentation and give its members the time and resources to do it" (p. 367). It is perhaps the attempt and not the outcome that should be acknowledged at this deconstructive stage of the process of learning and behavior change.

Weiner (2006) illustrates an example of dissatisfaction with the status quo in relating the case of the teacher who became very frustrated by her inability to curb the wandering behavior of one of her students. The teacher's frustration increased her anxiety because the failure of her approach undermined her important goal of effectively teaching a lesson to the whole class. Schein (1995) suggests that relieving this anxiety is a critical component in producing change through a process known as "psychological safety"

(Schein, 1995, p. 3). A school leader may be able to reduce teachers' anxiety by taking action to "balance the amount of threat produced by disconfirming data with enough psychological safety to allow the change target to accept the [new] information" (Schein, 1995, p. 3). As a demonstration of the leader's level of support for the principles of inclusive education, he or she might ensure the creation of a safe space where teachers may try new approaches and reflect on these. The teacher in Weiner's (2006) study felt safe enough to reframe her student's behavior as a positive rather than a negative attribute, and she was better able to establish new guidelines for the student's behavior in her class.

Vygotsky's (1978) research was concerned primarily with the learning and development of children; however, his theories concerning the role of sociocultural and developmental influences on the learning of new concepts have become major influences in psychology and education in general (Woolfolk, Winne & Perry, 2012). Vygotsky (1978) believed that cognitive development occurred as a result of interacting with others and especially with those who may be more advanced in their thinking. He coined the term "zone of proximal development" and defined it as "the distance between [one's] actual developmental level as determined by independent problem solving and the level of potential development as determined by problem solving under guidance or in collaboration with more capable peers" (Vygotsky, 1978, p. 86). If culture is defined a set of rules of conduct (Lewin, 1958; Schein, 2010), then problem solving within a cultural context can be viewed as a collective process of resolving disequilibrium that occurs when the established rules of conduct no longer align with the goals of the group.

School leaders may choose to assist in this process of realignment by encouraging group interactions with peers or knowledgeable others to work through the difficulties that are inherent in this complex process.

If a key component of an inclusive school culture includes leader behaviors to indicate that there is a safe environment in which to examine and critique the existing assumptions or rules, there are likely additional elements of the environment that school leaders may need to address to facilitate the process of change. Zimmerman (2006) explored the leadership and organization change literature to provide a summary of findings concerning common barriers to change and the steps that school leaders have taken to overcome resistance. One of the initial barriers discussed by Zimmerman, and also addressed by Schein (2010), is the sense of loss that is experienced during the process of change. Not only is there a loss of the familiar habits and approaches but these actions "have become part of [one's] personal and group identity" (Schein, 2010, p. 301). The teacher in Weiner's (2006) study likely had formed a strong sense of herself as an educator by adhering to traditional teaching methods. In essence, change requires teachers to feel safe in becoming students again to learn new approaches and frameworks from their leaders as well as from colleagues.

Zimmerman (2006) cites several studies (Clawson, 1999; Dotlich & Cairo, 2002; Duke, 2004, in Zimmerman, 2006) which observed that school leaders themselves needed to "be open to change and willing to expose their own weaknesses by becoming learners" (Zimmerman, 2006, p. 241). Within schools where the leader has demonstrated support for an inclusive culture, teachers may come to view the uncertainty that accompanies new

learning as a desirable trait which is acknowledged by their leader. Fullan (2002) stresses the importance of leader behaviors which demonstrate their belief and which also earn teachers' trust. This trust may occur when school leaders hold themselves accountable for any temporary reduction in teacher performance or student outcomes, which Fullan (2002) has referred to as the "implementation dip" (p. 18). Collins (2005) notes the trust-building effect for leaders who ensure that they also acknowledge and share credit with their staff for any short-term, as well as longer-term, benefits of adopting an inclusive educational culture.

As part of their behavior repertoire then, school leaders may need to frame and model their own learning and uncertainty as a step on a journey to an increased level of expertise within the inclusive culture. Providing a safe environment, as well as modeling uncertainty as a positive step, appear to be key leader behaviors that would indicate their attitude toward the value of the work that is involved in achieving an inclusive school culture.

Lewin and Grabbe (1945) explore the concept of uncertainty or disequilibrium as a need for "re-education [that] arises when an individual or group is out of step with society at large" (p. 53). Although the wider community may rely on schools to reflect their ideals of a socially just society that educates all children equitably, the process of operationalizing this vision may in turn demand considerable intentional and strategic activity to achieve this goal. One of the most challenging aspects of change, according to Lewin and Grabbe (1945), is overcoming the pervasive influence of the existing beliefs of a group or industry such as one's fellow educators. These authors note that it is

important for members of the group to "feel free to express openly the very sentiments which are to be dislodged through re-education" (p. 63). This implies that, to restore equilibrium, whatever is creating the uncertainty or disequilibrium needs to be articulated and needs to be addressed as a legitimate step in the change process. Further, Lewin and Grabbe (1945) suggest that this critique might be encouraged within a group discussion to foster a feeling of "complete freedom and heightened group identification" (p. 63) which is another important component of culture change. Fullan (2002) urges leaders to "redefine resistance" (p. 18) as an opportunity for teachers as well as leaders to address some important concerns about the implications of the change.

Lewin and Grabbe (1945) also discuss the process of the acceptance of new values in terms of three key aspects of: individual change in cognitive structure, in acceptance or rejection of group standards, and in the degree of one's perceived control over physical and social requirements of enacting those values. Lewin (1958) devoted much of his own research, however, to the essential role of group attitudes in the process of culture change; in particular, he examined the relationship between the changing perceptions of an individual member of a group and those of the group itself. Lewin (1958) suggested that equilibrium was actually "quasi-stationary" (Lewin, 1958, p. 208) because there are forces that are constantly in play which either increase the value of the current group standard and increase an individual's resistance to change or alternatively, decrease the value of the current group standard and thus decrease one's resistance to change. Several investigators have stressed the need for leaders to invest time in organizing group discussions where staff may examine existing processes critically and

plan evaluations of new approaches through fact-finding activities (Lewin & Grabbe, 1945; Schein, 2010; Senge, 2006) such as those that occur within professional learning communities (Fullan, 2002). When a school leader creates an environment in which teachers feel confident to express uncertainty and critically consider inclusive approaches to classroom management, this type of setting demonstrates the leader's confidence in the value of the inclusive approaches as a means of achieving the overall goals of the group of educators.

The literature has shown that the behavior of a school leader is a critical factor in reshaping the culture of a school, especially during that point in the change process when teachers seek evidence of support for the new culture (Leithwood, Begley & Cousins, 1992; Udvari-Solner & Keyes, 2000). A school leader's behavior that indicates support for the changed cultural norm can often lead to acceptance or denial by staff of the need to reframe old habits and set new standards. The leader's behaviors are an important indicator of these standards and are characterized in Ajzen's (1985) second factor in the theory of planned behavior; that is, those which would support the implementation of inclusive education practices as the subjective norm of the school.

The subjective norm refers to one's intention to perform a behavior, such as those associated with inclusive education practices, based on his or her perceptions that the behavior is evaluated positively by "important others" (Ajzen, 1985, p. 12). Eagly and Chaiken (1993) have criticized Ajzen's theory of planned behavior because it does not examine the planning process behind the effect of the subjective norm in terms of the intentions - of teaching staff in this case – to perform the outcome behavior. Liska (1984)

has criticized the model as well for focusing only on intentions and also for its exclusion of more complex behaviors. Ajzen (1985) appears to have qualified his focus on intentions by stating that intention precedes behavior, which may be predicted from one's attitude towards the behavior. Ajzen's concern appears to focus more on the prediction of behavior as a result of the interplay of the three factors of attitude, subjective norm, and efficacy in the theory of planned behavior. Ajzen stresses that these attitudes and subjective norms may be explained in terms of "beliefs about the consequences of performing the behavior and the normative expectations of [others]" (Ajzen, 1985, p. 14). This can be interpreted to mean that a leader's behavior may contribute not only to a teacher's perceived pressure to change his or her own behavior, but the leader's actions may contribute as well to some perceptions about the outcomes of performing the behavior.

In their meta-analytic review of the efficacy of the theory of planned behavior, Amitage and Conner (2001) reviewed other literature that had criticized the value of the subjective norm as being one of the weakest predictors of an individual's intentions to act (Godin & Kok, 1996; Sheppard et al., 1988; Van den Putte, 1991, in Armitage & Conner, 2001). However, Armitage and Conner (2001) found that most of the studies that identified the subjective norm as a weak predictor of intentions had used only single-item measures as opposed to more reliable multi-item scales which include variables that probe the effect of different facets of normative conduct. To assess the importance of leader behaviors that may influence teachers' perceptions about the value of inclusive education and thus their intentions to realign practices, researchers need to use measures

that provide multiple exemplars of those behaviors. These behaviors include those that demonstrate the leader's consistent commitment, use of supportive and collaborative processes, and organizational improvement through objective evaluations of outcomes, and strategic resource allocation. Each of these areas of behavior is discussed in the following section in terms of the research that addresses these as essential elements in changing a culture.

Leader Belief Behaviors and Their Value for Teachers in a Changing Culture

A school leader's role has been considered as it may appear at the earliest stages in the change process when there is an opportunity to establish a safe environment for teachers to critically examine familiar, yet unproductive, approaches and subsequently attempt some of the practices that are consistent with the goals of a new cultural norm. Influential leader behaviors, however, are not confined only to the early stages of adoption of inclusive education; there is ample research and comment in the literature concerning the need for teachers to witness a number of observable leader behaviors that provide evidence of the sustainability of the new culture. Indications of a leader's consistent commitment to the culture is foremost among these.

Consistent commitment. Research points to the element of consistency in behavior as an indicator of the depth of a leader's attitude towards the value of the cultural norm (Kouzes & Posner, 2002). Consistency in behavior can best be observed over time. Kouzes and Posner (2002) have found some common threads in the responses of thousands of participants concerning evidence of credibility in their leaders. They

conclude that "a judgment of 'credible' is handed down when words and deeds are consonant" (Kouzes & Posner, 2002, p. 37). There are examples from the literature which illustrate the consequences of a lack of such consonance, such as the study by Slobodzian (2009).

Jean Slobodzian (2009) conducted a year-long ethnographic study to observe the experiences of the teachers and students of a fifth-grade class in an American public school. There were 22 students, two of whom were deaf. One of the themes that arose from Slobodzian's (2009) observation was the apparent contradiction between the stated mission and values of the school administration and some of the leader's actions that ran counter to those ideals. Although the school's motto was "Everyone Counts" and the principal had stated on the web site that the school was child-centered, this leader did not become involved at the classroom level unless a situation had reached crisis proportions. In addition, the resource room teacher was often not included in discussions about modifications to the mainstream program which would have affected the programming focus for the students who used alternative means of communication.

All students in the fifth grade class took instruction from different teachers for subjects such as mathematics; however, the teachers had had little or no preparation or training to include the students who were deaf. The resource teacher was periodically assigned duties by the math teacher which prevented her from using sign language to communicate key verbal instructions for the students who needed these. Although students who were deaf had been attending this school for a decade, no professional

development or sign-language instruction had been provided to classroom teachers or staff (Slobodzian, 2009, p. 185).

The report lists other instances where the absence of communication or collaboration among staff and the lack of targeted training even in basic sign language had a direct or potentially harmful effect on the students. Slobodzian (2009) also refers to Vygotsky's (1978) theory that learning occurs as a result of social interactions with peers and others, but because the leader did not support the vision that "Everyone Counts" with consistent behaviors around collaboration, evaluation, and appropriate resource allocations, opportunities for these interactions were denied to the students who were deaf.

The harmful effects of the ongoing inconsistency between philosophy and action were apparent within the wider school community in this study as well. Slobodzian (2009) concludes that, although the principal referred to an inclusive set of operating values, his actions indicated that a very different, exclusionary set was the norm: "This situation was accepted by faculty and students alike" (p. 187). In this instance, the principal's behavior sent the subtle but powerful message to members of the school community that it was acceptable to exclude or marginalize students who were somehow different.

Unfortunately, Slobodzian's recommendations from her study focus more on the professional development needs of staff and much less on the critical need for the school leader's actions to be directly connected to support of the rhetoric. It appears then that

consistent leader behaviors must not only be evident at an early stage in the change process, but these must also be observed and valued by teachers over time as ongoing support of the worth and sustainability of a culture of inclusive education. Future research investigations need to identify principal behaviors that clearly indicate an enduring belief in the importance of enacting inclusive practices, whether schools are embarking upon the change or are working to sustain it.

Supportive and collaborative structures. To frame their discussion of effective leadership, Kouzes and Posner (2002) outline five key practices for leaders of change. These practices are referred to as (a) modeling the way, (b) inspiring a shared vision, (c) challenging the process, (d) enabling others to act, and (e) encouraging the heart. Perhaps the most critical of these practices in supporting culture change lies in behaviors that enable others to act and be empowered by the change. Kouzes and Posner (2002) and others (Fullan, 2002, Collins, 2005, Senge, 2006) have found that "the command-and-control techniques of the Industrial Revolution no longer apply" (Kouzes & Posner, 2002, p. 18). They have found that coercion and rewards offered by some leaders are not a sustainable option. Rather, trusting others, providing them with more information and discretion, and developing their leadership potential is more likely to encourage others to reflect the new culture within their own attitudes and behaviors (Kouzes & Posner, 2002). Fullan (2002) extends this concept to the long-term plans that leaders may make for succession, stating that "a school leader's effectiveness in creating a culture of sustained change will be determined by the leaders he or she leaves behind" (Fullan, 2002, p. 20).

It is apparent that leaders of change need to trust their constituents to make good decisions, and both parties may consider professional development as an investment in the future. In their case study of principal leadership in an effective inclusive school, Hoppey and McLeskey (2010) interviewed a principal who described his role as "lubricating the human machinery" (p. 248) by acting as a coach and mentor, developing a school-based professional development program, and providing opportunities for teacher leadership. It was his view that supporting teachers in these ways would be more likely to communicate his trust in the capability of staff to be successful as professionals. This leader commented further about the beneficial effect of staff confidence on the students as well as on the level of trust his teachers had in him in return: "if you want to get trust you have to give trust" (Hoppey & McLeskey, 2013, p. 249).

Although there may be many ways for a school leader to exhibit a positive attitude towards inclusive education practice as a valued cultural norm at a school through supportive and collaborative behaviors, there also may be many ways for teachers to interpret those behaviors. Pompeo (2011) investigated the ways in which general education teachers in Ontario had developed their more inclusive or interventionist practices, which are based on the assumption that students' learning success occurs as a result of targeted interactions between the student and the instructional environment (Stanovich & Jordan, 1998) and less so on perceived deficits that are thought to be inherent in the child. Teachers in the Pompeo (2011) study were interviewed to better understand their perceptions about how the principal, as well as other teachers, had supported them in developing these practices. Three of the teachers in the study taught within the same school, and yet they provided quite differing reports of

their school principal as a leader of inclusive education. Two of the teachers felt that their principal was "indifferent" because he did not visit or become involved in their classrooms, while the third teacher thought he was "amazing" and was "the key person to lead an inclusive school" (Pompeo, 2011, p. 116).

Pompeo (2011) suggested that these differences in interpretation may have occurred because the teachers "differed in their expectations of the role of their principal, which might have influenced their perceptions of the principal's role as a leader of inclusion" (p. 117). One of the teachers who viewed the principal's behavior positively felt that her own attitude toward interventionist teaching had been established outside of the specific school environment. The teacher with the negative view, however, may have been seeking more involvement and participation from the principal in her classroom as a means of providing a supportive environment in which to observe or to enact the principles of an inclusive culture.

In the Pompeo (2011) study, the strength of teachers' attitudes towards an inclusive culture appeared to influence their assessment of the value of principals' behavior; hence, any further study of the impact of a leader's belief should take into account the teachers' own perspective as an important determinant of needed supports. Although Pompeo's study was qualitative and provided rich contextual information about how teachers had developed their beliefs, it was beyond the scope of that research to examine in detail the role of the principal for those teachers whose attitudes may have been "quasi-stationary" or changing, as Lewin (1958) has posited, as a result of some of the influences in play at the school.

Conversely, Stanovich and Jordan (1998) were able to correlate the behavior of principals who had a positive attitude towards heterogeneous classrooms with effective teaching practice at the school. In their study, effective practice was "not mediated by attitude" (p. 221), which can be interpreted to mean that principals' behaviors and teaching practices were correlated, even when the teacher's own attitude score was partialed out as a factor. This finding might support the views of other authors (Heath & Heath, 2010; Kellerman, 2004) who have proposed that leaders who encourage their staff to change *only* their behavior can facilitate an eventual change in attitudes or beliefs. Schein (2010) would disagree. He notes that in spite of theorists such as Festinger (1957, as cited in Schein, 2010), who argue that "cognitive structures will adapt" (Schein, 2010, p. 308) if only behavior change is encouraged, the degree of the permanence of this change is questionable.

Lewin and Grabbe (1945) would seem to agree with Schein (2010). They caution that the re-educative processes examined in their research might actually hinder a true change of behavior as well as attitude if members of the group are not actively involved in the decisions. They fear that an external source of change, such as coercion or merely lecturing by a leader, would change only the superficial level of verbal expression of a value by others and not the more permanent indicator of attitude as manifested in observable behavior. It will be important then for a future study to provide an opportunity for educators to indicate not only which leader behaviors are essential for them but to describe their underlying reasons for assigning such importance to those behaviors.

It may be difficult to ascertain whether a school leader who arranges whole-school professional development is viewed as being supportive or intrusive by teachers. This dichotomy provides further rationale for interpreting teachers' perceptions as a function of their own attitude towards an inclusive culture, and it also points to the need for an additional layer of investigation. It may be critical to discover what leader behaviors are valued by teachers and also to seek some indication about why the behavior is important for teachers to observe in their leaders. This information might best be gathered in the form of an open-ended, short-answer question at the end of a comprehensive list of those leader behaviors which indicate support for inclusive education practice.

Objective evaluation. Just as school leaders can foster professional learning communities to assist teachers in increasing their knowledge about inclusive education practices, they may also use these same structures to engage teachers in evaluating data to assess the outcomes of those practices. Eilers and Camacho (2007) report the results of a case study in which a school leader was placed in an underperforming school. In just one year, the school showed dramatic improvements in the mathematics and reading scores of students in the third grade as compared to district averages. From their review of data collected over a two-year period, these researchers concluded that "evidence emerged showing a change in school culture that was linked to changes in teacher professionalism, school collaboration, and use of evidence linked to classroom work" (Eilers & Camacho, 2007, p. 631).

One of the critical elements of the culture change in the case study was related to the principal's request from the school district for the support of a curriculum and testing specialist; part of this person's role was to act as mentor and guide the teachers in the interpretation of data. Specifically, staff engaged in collaborative curriculum mapping to improve their skills of linking curriculum goals with authentic methods of measuring outcomes and agreeing on strategies. One third-grade teacher commented that her team would "bring an example . . . of [a] word problem [and ask], 'What are some strategies? What are the best proven theories that will work?" (Eilers & Camacho, 2007, p. 630).

The principal was also sensitive to the need for first changing the way in which his teachers related to each other and how they viewed the intervention of outside experts; they were wary of such individuals because of past criticisms from other district personnel. Fortunately, the curriculum and testing specialist who had been assigned to the school was known to many of the teachers and was well respected. It is possible that at least part of the success of the turnaround was due to the new school leader's sensitivity to the teachers' emotional state as members of an underperforming school. Eilers and Camacho (2007) cautioned that the two-year length of the study did not provide an opportunity to observe whether the turnaround would be sustainable. They conclude by suggesting that it is possible that activities supporting professionalism, collaboration, as well as the use of evidence, may need to be developed over a longer period of time at other schools wishing to emulate the turnaround.

A longer period of observation also might provide an opportunity to gain insight into the factors that contribute to the sustainability of the turnaround. Alternatively,

soliciting information from teachers at a greater number of schools might provide some additional insight into their perceptions of the importance of a leader's efforts to help them develop greater expertise in using evidence as an evaluative tool for planning.

There are in fact similar findings from longer-term studies of leaders who reflected on their experiences in implementing the "Assessment for Learning" initiative (Davies, Busick, Herbst, & Sherman, 2014, p. 568). Eight positional leaders, who were defined as those who "report to or are part of the leadership team that reports to an elected board of trustees" (Davies et al., 2014, p. 576), attended at least one of the annual week-long "Assessment for Learning" symposia held in Vancouver, Canada between 1999 and 2010. Four of the eight leaders were from Canadian school systems, including one from Ontario. The purpose of each symposium was to help resource staff and teams from each school system design plans for the implementation of the Assessment for Learning initiative in their schools or systems; this is defined as a formative assessment incorporating the deep involvement of learners, with the objective of determining where learners are in relation to what has been taught, what the subsequent needs are, and how best to meet those needs.

The symposium was somewhat unique in that the team participants also learned about using the assessment tools to support transformative change at the classroom, school, and system levels. The purpose of the research study was to examine the role of assessment in the service of learning in classrooms and also to support adult learning. The researchers state that "since leaders lead change ─ lead learning ─ it makes sense that they use Assessment for Learning as a means to accomplish their work" (Davies et

al., 2014, p. 568). Some reflection then is needed from both teachers and leaders to assess the value of leaders' actions in using information to evaluate the outcomes of inclusive education practices as a driver of continuous school improvement.

In the study of the Assessment for Learning Initiative by Davies et al. (2014), interviews, observations, and examination of documents from the school systems occurred over varying periods of time, from three years in one school system to ten years in another. Five major findings emerged from the study within which specific leader behaviors were evident. The behaviors of leaders who intentionally used assessment as a learning tool were similar to the actions that are included on checklists of critical behaviors to implement inclusive education as a change in school culture. These included a consistent commitment (public support; persistent focus; seed the initiative based on data and contextual information), collaboration and support (co-constructing criteria with stakeholder groups), using objective assessments (requiring different forms of evidence of learning; modeling the use of evidence in their own work), and resource allocation (transforming external pressures into powerful supports for assessment and learning goals).

Davies et al. (2014) note that originally the title of school principal was given to someone who served as the principal teacher (p. 571) and whose role, then as now, involves "attending to the learning needs of all learners, both children and adults, gathering evidence over time and building the kind of relationships that support ongoing work and learning" (p. 572). Likewise, Fullan (2002) refers to the Cultural Change Principal as one who maintains a "moral purpose, an understanding of the change

process, the ability to improve relationships, knowledge creation and sharing, and coherence making" (p. 17). It is apparent that the comments of Davies et al. (2014) and Fullan (2002) might apply just as readily to creating ideal environments for change as well as for learning, especially since, according to some dominant theories of change (Lewin, 1945; Vygotsky, 1978), these two processes are so closely interconnected.

Resource Allocation. The Eilers and Camacho (2007) study highlighted the critical role of the school leader in supporting culture change by securing the services of a curriculum and testing specialist to develop teachers' skill level. Teachers' beliefs about their ability to teach in inclusive settings is associated with their assessments of the availability of adequate resources in the form of instructional materials and especially the availability of resource personnel to coach or assist (Scruggs & Mastropieri, 1996; Werts, Wolery, Snyder & Caldwell, 1996). Here again, school leaders who make the provision of such resources a priority for longer-term financial budgeting may not only be contributing to the development of teachers' perceptions of their efficacy in performing the behavior but also to their motivation to try more inclusive education practices. If leaders demonstrate that acquiring these resources is high on the school's priority list, it may be an important indicator for teachers of continuing support for the culture change as a sustainable norm.

In her study of teacher and administrator views of support systems provided by principals for inclusive education, Valeo (2008) found that teachers interpreted some of the resources that principals considered to be supportive as being much less helpful than the principals had imagined. For example, the teachers in this study valued supportive

behaviors from the principal, such as arranging for intensive assistance from the special education teacher. However, Valeo reports that "elementary principals in this study regarded their roles as being administrative in nature and avoiding interference with the daily running of the integration program" (p. 13). One principal reported his role with these statements: "I get all the paperwork done . . . I read the Pupil Education Plans". This principal genuinely believed that he had fulfilled the leader's role in supporting integration by focusing chiefly on reporting and information tasks; however, the teachers in the Valeo (2008) study, as in the Pompeo (2011) study, interpreted this behavior as a lack of support for the program at the classroom level.

Valeo commented that the teachers in her study were not confident about their own abilities and sought to locate responsibility for the students with special needs outside of their control; Weiner (2006) associates this belief with a view of students in terms of their deficits and not in their strengths. According to Weiner (2006), these are the teachers who have a low level of belief in integration and are most in need of active and productive demonstrations of support from the school leaders. While both the studies by Pompeo (2011) and Stanovich and Jordan (1998) illustrate that those teachers with positive attitudes toward inclusive education practices are more likely to reflect these in their practice, Gokdere (2012) and Specht and Bennett (2014) caution that even those with positive attitudes need to be supported, especially newly graduated teachers. Both the Pompeo (2011) and the Valeo (2008) studies were qualitative, using information from interviews with a small number of teachers and principals. The current study sought to quantify the perceived value of principals' behaviors that demonstrate support or belief in

inclusive education and obtain this information from a larger number of teachers and principals.

Review of Needed Research

Throughout this literature review, a number of design features have been identified which could contribute to a broader investigation of teachers' perceptions of school leaders' behaviors that are critical in supporting a culture of inclusive education. These include:

- soliciting information from many educators at a greater number of schools;
- presenting participants with a comprehensive list of relevant leader behavior exemplars to indicate which ones are essential for them;
- obtaining information about teachers' and leaders' attitudes towards inclusive education to determine if their attitude is related to their choice of important leader behaviors; and
- providing an opportunity for educators to describe their reasons for assigning such importance to those behaviors in the form of an open-ended, short-answer question.

Assessing the Importance of Leader Behaviors

In rural schools. Previous studies have shown that perspectives on inclusive education may differ between educators in rural and urban communities (Deng, 2008) and also between those in elementary or secondary schools (Irvine, Lupart, & McGhie-Richmond, 2010). For many rural communities, regular classroom placement is the only option for students; therefore educators in these communities may have a greater

familiarity with this arrangement (Irvine et al., 2010). Inclusive education is likely to have been established in rural schools even in advance of the Equity and Inclusive Education Strategy plan from the Ontario Ministry of Education in 2009. Teachers and leaders in these schools may thus have a better sense of the longer-term outcome of the behaviors by leaders that support a culture of inclusive education practice.

Irvine et al. (2010) also point to the greater flexibility of the curriculum in elementary schools which allows more modifications and accommodations to occur. The study by Irvine et al. (2010) explored administrator roles in both elementary and secondary schools in a rural district of the province of Alberta to determine what strategies these leaders have used to overcome the challenges posed by school location and level. The current study however seeks not to examine different strategies that may be used by leaders in different contexts, but to determine the importance that teachers and leaders may place on a list of common behaviors that are associated with the successful establishment of an inclusive education culture in schools. To ensure the sampling of a homogeneous group in terms of location and school level, the population in this current study consisted of school teachers, principals, and vice-principals in elementary schools in a rural area of the province of Ontario.

Assessment Tools. There are a number of tools that have been developed for schools and school boards to evaluate their progress in implementing inclusive education practices. The Ontario Ministry of Education (2013) has produced the publication titled *A Reflective Tool for School and System Leaders on the Implementation of Ontario's Equity and Inclusive Education Strategy* (Ontario Ministry of Education, 2013a, p. 2). This tool contains six questions under each of nine broad areas of focus, with the objective of

assisting school leaders to describe how they are implementing inclusive education practices. These assessments focus on activities around supporting board policies, sharing leadership and valuing others' contributions, objectively gathering and evaluating information, and arranging for appropriate resources and professional development opportunities. Jorgensen, McSheehan, and Sonnenmeier (2010) have developed a similar rating scale as an accompaniment to their model, titled *Beyond Access: Promoting Membership, Participation and Learning for Students with Disabilities in the General Education Classroom*. In this checklist, there are also nine broad areas of focus that are similar to those in the reflective tool published by the Ontario Ministry of Education (2013a). The *Beyond Access Rating Scale* that accompanies the model contains a total of 89 individual indicators to assess whether there is no evidence, partial evidence, or adequate evidence of each one within a particular school or organization. Beside each indicator, an additional three-point rating scale is available to prioritize each one, with the number 1 representing the highest level of urgency.

While these tools appear to be quite comprehensive frameworks to assist school personnel in evaluating the overall status of the organization, there may be the desire and need for a more concise tool which permits a targeted assessment of the key actions of a school leader in legitimating inclusive education practices. The Louisiana Department of Education (2005) has authored the *Louisiana Validated Practices Initiative* (LVPI). This is also a comprehensive assessment tool with 92 indicators under eight broad areas of focus which are similar to those in the publications by the Ontario Ministry of Education (2013a) and Jorgensen et al. (2010). Each indicator in the LVPI also allows for ratings of

the items on a three-point scale to indicate the degree of its presence in the particular institution. See Table 1 for a summary of the categories that comprise these three reflective tools.

Table 1

Reflective Assessment Tools and Broad Categories of Items

Equity & Inclusive Education (EIE) Strategy Ontario Ministry of Education (2013)	**Beyond Access Model (BAM) for Students with Disabilities** Jorgensen et al. (2010)	**Louisiana Validated Practices Initiative (LVPI)** Louisiana Dep't. of Education (2005)
1. Policies and practices	1. High expectations and least dangerous assumptions	1. Foundations
2. Shared and committed leadership	5. Team collaboration	3. Collaboration
3. School-community relationships	8. Family-school partnerships	3. Collaboration
4. Inclusive curriculum and assessment	7. Ongoing authentic assessment	5. Instructional Practices
4. Inclusive curriculum and assessment	4. Curriculum, instruction and supports	4. Service Delivery
5. Accommodation (religious)	3. Quality augmentative and alternative communication	2. Diversity
6. School climate	2. General education class membership and full participation	6. Behavior supports
7. Professional learning	6. Professional development	7. Professional development
8. Accountability and transparency	9. Special and general education reform	8. Administrative Responsibilities

Note: Numbers in each column represent those assigned to the category headings in their respective documents. Order of categories has been rearranged for the assessment tools appearing in columns 2 and 3 to show the approximate alignment of the categories among the three assessment tools.

One area of the LVPI, however, contains only 18 items which relate to Administrative Responsibilities (LVPI Broad Category 8, Appendix G). These items appear to address the critical behavior areas that have been identified in the literature as

key ones for a leader who wishes to promote a culture of inclusive education as the norm at his or her school (i.e., consistent commitment, collaborative leadership structures, appropriate resource allocations and objective evaluation methods). If the 18 items from the Administrative Responsibilities category of the LVPI were to provide a valid means for school leaders to identify which of these types of behaviors may be most important for individual staff, the tool could be used by a leader to assess whether he or she is meeting the needs of the teachers at that point in time. Further research is needed to determine the validity of this section of the LVPI as an accurate, albeit general, tool to assess the importance of school leaders' behaviors that fall within these critical areas as identified in the literature.

Summary

For school leaders to create an environment in which a culture of inclusive education practice may be fostered and sustained, they may need to be aware of possible differences between their own and their teachers' current attitudes and needs. Elementary school leaders may differ from teachers in their attitudes towards inclusive education practice. They may also differ from teachers in their perceptions of the importance of school leaders' behaviors that support the culture of inclusive education. There may be a relationship between these attitudes and perceptions, and increased knowledge about this connection may help school leaders to focus on support behaviors that are more important to those whose attitudes towards inclusive education are somewhat tentative. There may also be common themes in school leaders' or teachers' descriptions of the underlying reasons for their perceptions which would underscore the need for a focus on

specific behaviors. Three questions framed an investigation of these potential differences and relationships:

1. Is there a difference between elementary school leaders and teachers in rural southwestern Ontario in a) their attitudes toward inclusive education practice, and b) their perceptions of the importance of leaders' support behaviors that demonstrate his or her level of commitment to an inclusive school culture?

2. Is there an association between all participants' attitudes toward inclusive education practice and their perceptions of the importance of the leaders' support behaviors?

3. What are the common or divergent themes among school leaders and teachers' underlying reasons for valuing leaders' support behaviors?

The methodology discussed in the next chapter includes detailed descriptions of the research design, the participants, and the materials and procedures that were used to explore these questions.

CHAPTER 3

Methodology

The purpose of the study was to address three research questions:

1. Is there a difference between elementary school leaders and teachers in rural southwestern Ontario in a) their attitudes toward inclusive education practice, and b) their perceptions of the importance of leaders' support behaviors that demonstrate his or her level of commitment to an inclusive school culture?
2. Is there an association between all participants' attitudes toward inclusive education practice and their perceptions of the importance of the leaders' support behaviors?
3. What are the common and divergent themes among school leaders and teachers' underlying reasons for valuing leaders' support behaviors?

This chapter begins with a discussion of the research method selected in terms of its characteristics and value in addressing the research questions. This discussion will culminate in a detailed diagram and description of the components of the research design. The chapter concludes with a description of the participants, the specific measures used, and the procedures for data collection and analysis.

The Research Method

Cresswell (2014) advises that one's approach to research incorporates assumptions about the research setting which leads to the selection of a specific design and research methods. While experimental research primarily determines cause and

effect relationships, often this occurs when the researcher intervenes and systematically changes or manipulates one or more variables. The assumption is that events are ordered, and a change in one element will affect another. However, in the current study, it was important to identify differences that may already exist between two groups to better understand some of the reasons underlying these differences. The reality of inclusive education practices for teachers and leaders may depend to a great extent on their views of the context within which they must fulfil their roles. It was important to pose the research questions to better understand how and why these two groups of people may differ in their views of inclusive education and in their values.

Because the goal of this study was to determine both the significance of difference between teachers and leaders in their views about inclusive education and also to understand why these differences may be occurring, a mixed methods approach appeared to be the best choice for the investigation. Cresswell (2014) has defined mixed methods research as a design which involves "combining or integrating qualitative and quantitative research and data" (p. 14). Quantitative data that may be gathered through questionnaires provide numerical assessments of the similarities or differences in evaluations between participants on a specific topic. Qualitative data, such as open-ended questions, provide the researcher with new information and understanding about the why the participants' perceptions may differ.

Researchers have been systematically triangulating data sources to seek convergence across qualitative and quantitative methods since the early 1970s (Cresswell, 2014). The method of converging the data in the current study can best be

described as convergent parallel mixed methods; in this design, the researcher collects both forms of data at the same time and then "integrates the information in the interpretation of the overall results" (Cresswell, 2014, p. 15). The mixed method of data collection allows the researcher to corroborate similar findings from different types of research (Johnson & Christensen, 2000) and perhaps gain a fuller understanding of the differing interpretations or contexts of the groups of participants.

While the mixed-methods design as described draws on two types of data for enhanced analysis and interpretation, it is not without its challenges. Researchers using mixed methods should be familiar with both forms of research and also be prepared for the time-intensive nature of analyzing qualitative and quantitative data (Cresswell, 2014). In addition, mixed methods may double the available data to investigate a problem of practice, but it may also increase the chances for a researcher to uncover conflicting information, such as a lack of difference between two groups qualitatively that may have been identified in the quantitative analysis.

Gay, Mills, and Airasian (2012) embrace the mixed-method approach, however, as an opportunity to find "points of intersection as well as discrepancies" (p. 428). Johnson and Chrstensen (2000) view the discovery of these corroborations and conflicts as a point of departure within which to articulate the type of additional research that may guide future studies. It appears then that the mixed methods approach provides a multi-layered approach to investigating the research questions and also challenges researchers to critically consider any areas of apparent discrepancy. Figure 2 displays the mixed-

method design and the type of data that was collected concurrently from study participants by means of an online survey.

In this chapter, the hypotheses for each question are articulated. The study design and analyses plan to answer the research questions are described, along with a discussion of the participant sample selection and recruitment, the measurement instruments used, and data collection procedures.

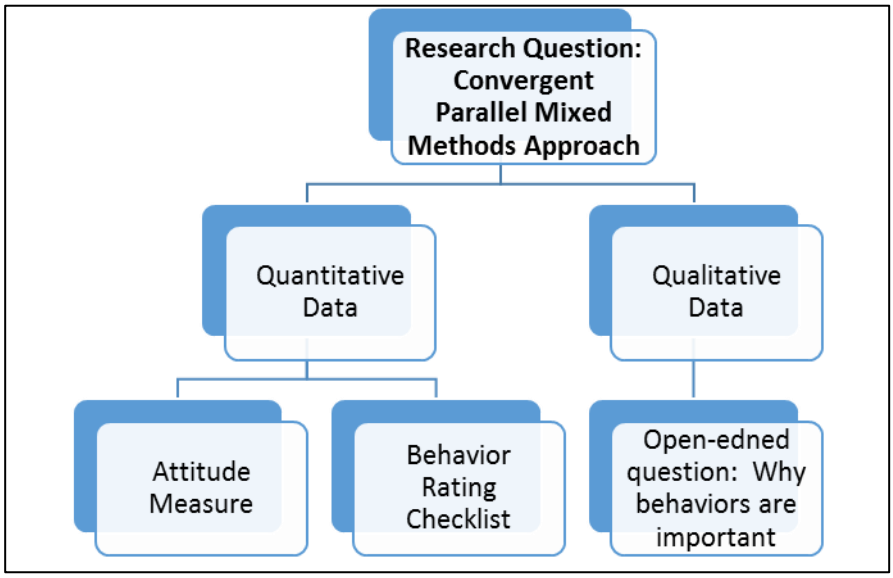

Figure 2. Research Design and Data Collected.

Hypotheses for Research Questions

To address each question, the following hypotheses were articulated:

1. a) Elementary school leaders will have a more positive attitude than teachers towards inclusive education practice, and (b) elementary school leaders will place a higher importance than teachers on all leaders' support behaviors.
2. Regardless of role, participants with a higher attitude score concerning inclusive education practice will be more likely to assign a greater rating of the importance of leaders' support behaviors.
3. Participants' stated reasons why leaders' support behaviors are important will reflect the perceived needs of their roles as teachers or leaders.

Design

To answer part a) of the first question, a quantitative research design was used to compare the scores of school teachers and leaders on an attitude measure to determine if there were significant differences between the two groups on that measure (Cresswell, 2008). The independent variable is membership in one of the two groups of participants, and the dependent variable is the total score on the attitude measure. Data for this question, and for all of the research questions, were collected using a single web-based survey format. Participants provided responses to items on a standardized instrument which was used to assess their attitudes towards teaching all students.

To compare the scores of the groups on the attitude measure, an analysis of variance (ANOVA) technique was used to test for significance of differences between the mean attitude scores of the two groups. The ANOVA is used by researchers to determine whether the scores in one group are significantly more variable than scores in the other

group. In the means test, the variance among means is compared with the variance within groups (Slemon, 1987).

There are four assumptions about the data that must be met to use the ANOVA technique: participants must be selected randomly, and they must also be independent of one another (i.e. the members of the group of school leaders are not members of the teachers' group). The scores for each group also must be normally distributed around the mean (i.e. in approximately a "bell-curve" fashion), and finally, the variances of scores must be approximately equal or homogeneous between the groups. It was important to check the data for normal distribution and homogeneity of variance prior to conducting the ANOVA, particularly in datasets such as the one in this study where the number of individuals in the school leaders' group is not equal to the number in the teachers' group.

A directional hypothesis had been predicted for the first part of question 1, and therefore, tests of the significance of the differences between means were sufficiently strict to reduce the possibility that the null hypothesis (no difference) would be rejected when there may in fact be no significant difference between the scores of the two groups. The significance of the difference was tested by conducting an F test, which is a ratio that indicates how much the variance among means exceeds the variance within the groups. The significance of this ratio is determined by reference to a table of critical values which indicates the minimum value needed for the F ratio to be significant with a probability of fewer than 5 chances in 100 ($p<.05$) that the difference was obtained by chance.

A comparative design was used also to address part b) of the first question to determine if there were differences between teachers and leaders in the study on their perceptions of the importance of specific leader support behaviors. Similar information was collected in the Pompeo study (2011) from interviews with only a small number of teachers and principals. The current study sought to quantify the perceived value of school leaders' behaviors with a greater number of participants. In this section of the survey, a checklist of specific leader behaviors was included subsequent to the items from the attitude instrument. This checklist was adapted from the Administrative Responsibilities section of a larger list of behavior indicators of inclusive education practice, known as the Louisiana Validated Practices Initiative or LVPI (Louisiana Department of Education, 2005). Participants were asked to indicate their perception of the importance of each of 18 behaviors on a three-point Likert scale. A Chi-square test (χ^2) for independence or difference between the responses of teachers and leaders was conducted on their responses to each of the 18 items of the adapted LVPI.

The Chi-square test is used to explore the relationship between two categorical variables. In this study, the first categorical variable was participants' role as either a teacher or a leader, and the second categorical variable was the rating of each leader behavior as 1 (not important), 2 (somewhat important) or 3 (very important). This test compares the observed frequencies or proportions of cases that occur in each of the categories, with the values that would be expected "if there was no association between the two variables being measured" (Pallant, 2010, p. 217).

The assumptions in using the Chi-square test are that the participants have been

selected randomly, the group of school leaders is independent or different in membership than the teachers' group, and that the lowest expected frequency in any observational cell would be 5. Cramèr's phi was used to determine the magnitude of the effect of significant differences between the ratings of teachers and leaders.

A comparative design was used also in exploring the second question to determine if there is an association between two variables (Howell, 2004). The variables investigated were the attitude scores of the study participants and their ratings of the importance of behaviors that school leaders display to support a culture of inclusive education practice at their schools. In comparing these two variables, an association might be observed between one's attitude towards inclusive education and the perceived importance of a specific leader behavior. The Kruskal-Wallis Test was used as a non-parametric or distribution-free alternative to the ANOVA technique to determine if there was a significant difference between attitude scores of the participants as measured by the Attitudes Toward Teaching All Students with Mild to Moderate Disabilities (ATTAS-mm) across the three ordinal ratings of the perceived importance of the leader behaviors.

The assumptions that must be true to use the Kruskal-Wallis test are the same as those for other non-parametric tests; that is, the samples must have been selected randomly and the observations must be independent (i.e. from individual participants). There must also be two variables: one continuous dependent variable (the attitude scores) and one categorical independent variable with three or more categories (the three-point rating scale of specific leader behaviors). For each leader behavior, there must be more than five cases in each of the three rating categories. The Mann-Whitney U post-hoc test

is similar to the Kruskal-Wallis test and was applied to the rankings to determine which of the three groups were significantly different from one another. If the categorical independent variable was comprised only of two rating categories for a specific behavior due to insufficient numbers in one category, the Mann-Whitney U test only was used to compare the significance of differences between the attitude scores of participants who chose either category.

It is essential to note that in the comparison designs for questions 1 and 2 respectively, no inferences are made about a cause-effect relationship. The study focused instead on the significance of differences between school leaders and teachers in their attitudes toward inclusive education, their perceptions of the importance of leader behaviors and the strength of association between those attitudes and perceptions.

To address the third and final question, a qualitative design was used to conduct a thematic analysis of the typewritten responses to the final question on the survey which probed reasons why leader behaviors may be important to participants. An emergent coding technique was used to establish categories of responses based on word frequency counts. From these frequent or key words, a key word in context search was conducted in subsequent readings to test for the consistency of usage of those words within the responders' sentences. The substance of the comments involving the keywords facilitated the creation of a checklist of categories with which to organize the responses into themes (Stemler, 2001, para 10-13).

This analysis is designed to provide additional information about the value of leaders' support behaviors for participants; however, it is by no means an exhaustive investigation. One of the strengths of the survey method to collect data lies in the higher number of responses received, but participants completed this instrument anonymously. Therefore, there was no way to contact participants in a purposeful sample to gather additional information from a representative cross-section of the participants by role, attitude, or perception of the importance of specific leader behaviors. The next section discusses the method of participant selection in more detail.

Participants

Sample selection for the study.

Population. The Ontario Ministry of Education guideline, *Equity and Inclusive Education Strategy* (2009), laid out a detailed plan for implementation that occurred over a four-year period, which would have culminated in the 2011-2012 academic year. In 2013, the Ministry of Education issued *Policy/Program Memorandum No. 119* which cited legislation requiring all school boards in Ontario to develop and implement an equity and inclusive education policy (Ontario Ministry of Education, 2013b).Therefore, it is reasonable to assume that teachers, as well as principals and vice-principals in Ontario school boards, are working in schools with inclusive education and equity policies in place to some degree. In addition, studies have shown that perspectives on inclusive education may differ among teachers and school leaders in rural, suburban, and urban communities (Deng, 2008) and also between those in elementary and secondary schools (Irvine, Lupart, Loreman, & McGhie-Richmond, 2010). To ensure the sampling

of a homogeneous group in terms of location and school level, the population for this study consisted of school teachers, principals, and vice-principals in elementary schools in the rural, southwestern area of the province of Ontario.

Statistics Canada (2011) has defined three levels of "population centre" to distinguish between urban and non-urban areas of Ontario (Statistics Canada, 2011, para. 8). Small population centers have a population that ranges from 1,000 to 29,999; medium population centers range from 30,000 to 99,999; and, large centers are those where more than 100,000 people reside. The Rural Ontario Institute (2013) refers to rural populations as "non-metro"; that is, those who are living "in smaller cities, small towns and areas outside the commuting zone of census metropolitan areas" (para. 4) or large population centres. According to the table of population by type of community within each census division in Ontario in 2011 (Rural Ontario Institute, 2013), there are seven counties in south-western Ontario where the populations fall completely within the non-metro designation. In its list of provincial school boards, the Ontario Ministry of Education (2014) names the census divisions and counties served by each board. By interpolating the truly rural counties as identified by the Rural Ontario Institute (2013) with those school boards in southwestern Ontario whose boundaries fall completely within one or more of those counties, it was possible to identify five completely rural school boards in the region.

According to the Ontario Ministry of Education (2014), almost all school boards (83.3%) in the province are English speaking. There are no French public or French Catholic school boards in the southwestern Ontario region, and therefore, all five of the

school boards in the population are English speaking. The English speaking boards in the province are nearly evenly divided between the categories of public and Catholic at 31 and 29 boards respectively (Ontario Ministry of Education, 2014). Of the five completely rural school boards in southwestern Ontario selected for the study, two are public and three are Catholic. This proportion appears to oppose the provincial profile in which there are slightly more English public boards than English Catholic boards; however, a nearly even division in the number of school boards does not necessarily imply that there is an approximately equal number of students or teachers in each board type. The actual distribution can be inferred from the number of schools per board in the rural southwestern Ontario region in Table 2. With a total of 73 public schools and 53 Catholic elementary schools within the completely rural school boards in the southwestern Ontario region, the public schools outnumber the Catholic schools by a ratio of 1.4 to 1. This ratio, then, accurately represents the actual proportion of public to Catholic elementary school teachers, principals, and vice-principals in the region rather than the distribution for the entire province of Ontario.

Participants. The school boards in this population represent elementary teachers, principals, and vice-principals from school boards in rural southwestern Ontario, and as a result, there was a risk that the data collected may reflect a regional bias. Any observations, therefore, cannot be generalized beyond the members of these school boards in the rural, southwestern area of the province of Ontario.

Sample size. It was important to have an accurate estimate of this population to achieve an adequate representative sample from within each of the five boards. Although

information about the total number of elementary schools and principals and vice-principals was readily available for each board, the exact number of teachers had to be estimated. The Ontario Ministry of Education (2014) figures reveal that in 2013-2014, there were 73,674.33 elementary teachers at 3,980 elementary schools in all of Ontario. This provides an average of 18.5 teachers per school, which appears to be an overestimate for smaller, rural schools; however, it is more desirable to base sample calculations on a higher estimate of the population (Gay, Mills, & Airasian, 2012, p. 134). The estimated total number of elementary teachers was achieved by multiplying the number of elementary schools in each board by 18.5. Using these calculations, the total number of elementary school teachers in this population has been estimated at 2,330. See Table 2 for detailed figures.

It has been suggested that "if the population size is around 1,500, [then] 20% should be sampled" (Gay et al., 2012, p. 143). The minimum total sample of teachers then is 466. A sample size for each board was calculated at 20% of the total estimate of elementary teachers in that board. These figures appear in Table 2. There was no attempt to seek representative quotas of teachers from the primary, junior, and intermediate grade divisions in the schools, although participants had the option to indicate this information on the demographic survey component of the data collection instrument.

There are 161 principals or vice-principals in total in this rural region. If school leaders themselves comprise a distinct group of participants, then Gay et al. (2012) suggest sampling at least 50% of this smaller group. Therefore, the appropriate sample size for the population of elementary school principals and vice-principals was 81. The

total sample of both teachers and principals and vice-principals combined for the study was 547.

Table 2

Sample Sizes

Board Designation	Elementary Schools	Teachers (18.5 per school)	Principals or vice-principals	Sample size: teachers (20%)	Sample size: principals/ vice-principals (50%)	Total sample size per board
English Public "A"	31	573	58	115	29	**144**
English Public "B"	42	777	42	155	21	**176**
English Catholic "C"	11	203	11	41	6	**47**
English Catholic "D"	16	296	16	59	8	**67**
English Catholic "E"	26	481	34	96	17	**113**
Totals	126	2,330	161	466	81	547

Measures

There were four measures in total which were included within one data collection period. Following receipt of ethical approval from Western University (Appendix B), data was collected by means of an online survey that was accessible by all participants for four weeks following the distribution of a general electronic mail invitation to all elementary school leaders and teachers in the participating boards (Appendix C). The invitation was sent to eligible participants from the administrator of each school boards' electronic mail system. Also included with the invitation were the Letter of Information (Appendix D) and a link to a secure survey web site. The online survey included four elements: a demographic questionnaire (Appendix E); a measure of participants' attitudes toward the inclusion of students with mild to moderate disabilities (Appendix F); a

checklist of school leaders' behaviors that reflect support of inclusive education practice; and, an open-ended question to capture reasons why participants may find these behaviors important (Appendix G). Each of these instruments is discussed here in detail.

Demographic Questionnaire. The demographic questionnaire (Appendix E) was designed to gather the following information from participants: role within the school; type of school board (public or separate); gender; age range; number of years of teaching; grade level they are currently teaching (primary level to Grade 3; junior level Grades 4 to 6, intermediate level Grades 7 to 8, or "other-please describe" for resource teachers and school leaders); and, the extent of their familiarity with persons with exceptionalities (self, family, friends, at work/school, not at all, or "other-please describe"). For each question, participants were instructed to select responses from a brief, but wide-ranging, list of choices. For example, participants indicated their role within the school as "teacher", "resource specialist", "principal" or "vice-principal". The demographic information was gathered to acquire detailed descriptive data about the participants and especially information about their role; role information was vital to the comparative analyses between the two aggregated groups of teachers (teachers and resource specialists) and leaders (principals and vice-principals).

Attitude Measure. Attitudes toward the inclusion of students with mild to moderate disabilities were assessed by inviting all participants to complete the standard instrument developed by Gregory and Noto (2012) and known as the Attitudes Toward Teaching All Students with Mild to Moderate Disabilities or ATTAS-mm (Appendix F). This instrument is a revised version of the Teacher Attitudes towards Inclusion Scale or

the TATIS scale (Cullen, Gregory & Noto, 2010). The ATTAS-mm contains 9 statements and requires educators to rate their level of agreement with each statement on a seven-point Likert scale, ranging from "agree very strongly" (1) to "disagree very strongly" (7).

Each statement in the ATTAS-mm instrument corresponds to one of three scoring subscales for the instrument to address the three theoretical components of attitude: cognitive, behavioral, and affective (Lewin & Grabbe, 1945; Ajzen, 1985). The first three statements are designed to measure the cognitive dimension of attitude, which is defined as "believing all students can succeed in general education classrooms". The next three statements measure the affective dimension of attitude and is titled "developing personal and professional relationships". The final three statements assess the behavioral aspect of attitude; this subscale is referred to as "creating an accepting environment for all students to learn" (Gregory & Noto, 2012). The subscales are included with scoring instructions in the instrument's technical manual, but these are not indicated on the instrument itself. Scores from the nine items of the ATTAS-mm are summed to derive a total raw score, as well as a percentile ranking, to indicate whether the participant's overall attitude is higher or lower than the average of the entire group. Lower scores are associated with more positive attitudes.

There is some debate in the research community about Likert-scale data and whether it can be considered to be continuous; these scales are usually analyzed as ordinal rather than continuous data because they indicate the magnitude of a response, ordered along a scale. However, the ATTAS-mm satisfies the criteria for data to be considered continuous because there are multiple items in the scale, and each item itself

contains seven or more levels of response (Sweet & Grace-Martin, 2012).

To test the validity of the revised version of the instrument, in 2012, the authors of the ATTAS-mm selected 27 items for a pilot test of the instrument. An initial factor analysis was conducted to identify and retain only those items with initial correlations of .7 or greater on a rotated component matrix; that is, those items that were closely related to other items in this attitude measurement instrument. A principal components analysis (PCA) was conducted by the authors of the instrument on the remaining 12 items to identify those that related to or loaded most strongly on one of the three components or factors. Nine of the twelve items were retained and an additional factor analysis was run on these items. The unstandardized Cronbach's alpha reliability statistic for the remaining nine-item ATTAS-mm scale was calculated by the instrument's authors to be .833 (Gregory & Noto, 2012); a value of at least .8 is considered to be acceptable (Cardinet, Johnson & Pini, 2010, p. 5).

For the current study, reliability statistics were calculated as well for the ATTAS-mm scale using the data collected from the southwestern Ontario participants and employing the statistical analysis program SPSS version 23. The Cronbach's alpha for this data was acceptable as well at .867. There was a good mean inter-item correlation of .434 with values ranging from .203 to .683; the majority of correlations (80.5%) were at or above .300. The unstandardized Cronbach's alpha for the subscale questions using the current dataset were: Cognitive = .776, Affective = .707, Behavioral = .782.

Validity testing of the ATTAS-mm is ongoing, and the instruments' authors have

requested receipt of data from this study in exchange for permission to use the ATTAS-mm. Therefore, factor analysis procedures were conducted on the data collected for this study as well to confirm factor loadings with responses of the participants prior to conducting any additional statistical analyses. Data collected on the nine items of the ATTAS-mm scale were subjected to both an exploratory factor analysis and a principal components analysis (PCA) using SPSS version 23 statistical analysis program. Prior to performing PCA, the suitability of the data for factor analysis was assessed as acceptable: inspection of the correlation matrix among all nine items revealed the presence of 29 of a possible 36 coefficients of .3 and above. In addition, the Kaiser-Meyer Olkin measure of sampling adequacy was .864, which is greater than the recommended value of .6 (Kaiser, 1974), and Bartlett's Test for Sphericity (Bartlett, 1954) was significant, supporting the suitability of the data for factor analysis.

Principal components analysis on data collected in this study revealed the presence of only two components with eigenvalues exceeding 1, explaining 50.41% and 12.98% of the variance respectively. The screeplot confirmed a clear break after the second component. This finding was further supported by the results of a parallel analysis which showed only two components with eigenvalues exceeding the corresponding criterion values for a randomly generated data matrix of the same size (9 variables by 428 participants). The screeplot may be found in Figure 3 of Appendix H.

The two-component solution explained a total of 63.39% of the variance, with component 1 contributing 50.41% of the variance and component 2 contributing 12.98% of the variance. To aid in the interpretation of these two components, oblimin rotation

was performed. The rotated solution revealed the presence of simple structure (Thurstone, 1947), with both components displaying a number of strong loadings and all variables loading substantially on either of the components. The interpretation of the two components differed from previous research on the ATTAS-mm scale: two of the behavioral items and all three of the affect items loaded strongly together on component 1 rather than as separate factors, while the cognitive items loaded strongly and independently on component 2. There was a moderate negative correlation between the two components (r = -.482). The pattern and structure matrices for the two principal components appear in Table 3. The unrotated loadings for the ATTAS-mm may be found on Table 4 in Appendix I.

Table 3

Pattern and Structure Matrix for PCA with Oblimin Rotation: Two-factor Solution of ATTAS-mm Items

Item	Pattern Coefficients		Structure Coefficients		Communalities
	Component 1	Component 2	Component 1	Component 2	
5. Affective	**.861**	.039	**.842**	-.376	.538
7. Behavioral	**.826**	.038	**.808**	-.360	.516
8. Behavioral	**.720**	-.139	**.787**	-.485	.538
4. Affective	**.641**	.032	**.626**	-.277	.342
6. Affective	**.463**	-.453	**.681**	-.676	.527
3. Cognitive	.055	**-.856**	.468	**-.883**	.614
2. Cognitive	-.146	**-.810**	.244	**-.739**	.315
1. Cognitive	.049	**-.794**	.432	**-.818**	.518
9. Behavioral	.356	**-.592**	.642	**-.764**	.590

Note: Major loadings for each item appear in boldface.

The results of this analysis support the use of the attitude scale as a valid and reliable overall measure of attitude for this sample; however, using the behavioral and affective items as separate sub-scales, as suggested by the authors of the ATTAS-mm (Gregory & Noto, 2010), is not supported. Therefore, it was possible to calculate scores using all of the items on the attitude measure, but no analyses or interpretations were planned using any of the instrument's three subscales alone.

Following completion of the tests of validity for the attitude measure, the raw scores from the ATTAS-mm of both the school leaders' group and the teachers' group were compared using a one-way analysis of variance technique to observe any significant differences in overall attitude between the two groups. Attitude scores from the ATTAS-mm were also compared with the ratings of the importance of leader behaviors as adapted from the Louisiana Validated Practices Initiative (LVPI) using the Kruskal-Wallis test to determine the strength of association between attitude scores and the importance of specific leader behaviors. The LVPI instrument is described in the section concerning participant ratings of leader behaviors.

Participant Ratings of Leader Behaviors. All participants were invited to assess the importance of leaders' behaviors as set out on an 18-item list (Appendix G) adapted from the Administrative Responsibilities section of the Louisiana Validated Practices Initiative or LVPI instrument (Louisiana Department of Education, 2005). Permission was granted by the Louisiana Department of Education to use this portion of the LVPI. The items from the Administrative Responsibilities section were selected for this study because they address the nine areas of focus in the *Reflective Tool for School*

and System Leaders on the Implementation of Ontario's Equity and Inclusive Education Strategy (Ontario Ministry of Education, 2013a, p. 2). On the LVPI, participants indicate whether each item is in place at their schools; however, the responses to the 18 items in the Administrative Responsibilities section have been adapted for this study to indicate whether the relevant behaviors are rated (1) "not important", (2) "somewhat important", or (3) "very important" rather than (1) "not in place", (3) "partially in place", or (5) "in place" as on the original instrument. Ratings on each item as adapted indicate the participants' level of perceived importance of the behaviors.

The statements selected from the LVPI address not only the nine areas of focus on the reflective tool published by the Ontario Ministry of Education (2013a), but these items also appear to correspond with the nine areas of focus on the best practices rating scale of the *Beyond Access Model for Students with Disabilities* (Jorgensen, McSheehan, & Sonnemeier, 2010). See Table 1. Items in the nine areas of the Beyond Access Model are also rated on a three-point scale for their perceived priority of importance, as well as for the degree to which these appear to be evident in the respondents' schools.

The nine areas on these instruments, which are similar in focus to the sections of the complete LVPI, appeared to address three factors underlying assessments of relevant behaviors: use of a collaborative approach; consistent commitment and advocacy for inclusive education practices; and actions related to objective evaluation and the allocation of resources to provide inclusive education as a continuous school improvement initiative. There are as yet no published validation studies for the entire LVPI. Efforts by investigators at the Louisiana State University (Mooney & Daigle,

2005) to confirm the validity of the Louisiana Validated Practices Initiative were interrupted in 2005 by Hurricane Katrina, when funding that had been provided for the three-year validation project was reallocated by the Department of Education. Due to the absence of prior published validation studies, and also due to the adaptation of the LVPI instrument for this study, it was essential for the researcher to conduct tests of validity on the dataset for this study.

Reliability analysis indicated a strong Cronbach's alpha of .922. The 18 items of the Administrative Roles section of the LVPI concerning leader behaviors were subjected to principal components analysis (PCA) using SPSS version 23. Prior to performing the PCA, the suitability of this ordinal data for factor analysis was assessed. Although a polychoric correlation matrix was generated to determine such suitability (Basto & Pereira, 2012), and syntax was used to create this matrix within the SPSS program (Lorenzo-Seva & Ferrando, 2015), it was decided to use the more conservative Pearson matrix that was generated as well for this ordinal data.

Inspection of the Pearson correlation matrix revealed the presence of many coefficients of .3 and above (83.6%). The Kaiser Meyer Olkin value to assess sampling adequacy was .920, exceeding the recommended value of .6 (Kaiser, 1974). Bartlett's Test of Sphericity (Bartlett, 1954) reached statistical significance, supporting the factorability of the correlation matrix.

Principal components analysis revealed the presence of three components with eigenvalues exceeding 1, explaining 43.14%, 9.29%, and 7.07% of the variance

respectively. An inspection of the screeplot revealed a clear break after the fourth component. The screeplot is displayed as Figure 4 in Appendix J. Parallel analysis also revealed only three components with eigenvalues exceeding the corresponding criterion values for a randomly generated data matrix of the same size (18 variables by 428 respondents).

The three-component solution explained a total of 59.49% of the variance, with component 1 contributing 43.13%, component 2 contributing 9.29% and component 3 contributing 7.07%. Table 6 in Appendix K displays the unrotated factor loadings. To aid in the interpretation of these three components, oblimin rotation was performed. The rotated solution revealed the presence of a simple structure (Thurstone, 1947) with all three components showing at least three strong item loadings and many items loading substantially on only one component. The pattern and structure matrices for the three principal components appear in Table 5. Items with correlations of less than .55 in the pattern matrix, or that did not load strongly on any one component, were omitted from further analysis; specifically, these are items 4 to 8 and items 15 and 18 of the adapted section of the LVPI.

Although there is no other published validity research on this scale, the items that did load strongly on the three components concerning the leader's use of: a collaborative approach (component 1, collaborating); support and advocacy efforts for inclusive education practices (component 2, advocating); and, actions to incorporate inclusive education as a continuous school improvement initiative (component 3, improving)

respectively. There was a moderate positive correlation among the three components (r 1,2 = .322, r 1,3 = .525, r 2, 3 = .391).

Table 5

Pattern and Structure Matrix for PCA with Oblimin Rotation: Three-component Solution of LVPI Items

LVPI Item Number	Pattern Coefficients			Structure Coefficients			Commun-alities
	1	2	3	1	2	3	
Collaborating: 14	**.887**	.071	-.133	**.840**	.305	.360	.719
16	**.849**	.112	-.125	**.820**	.337	.365	.688
17	**.757**	-.052	.194	**.842**	.268	.571	.734
13	**.660**	.119	.050	**.724**	.351	.443	.542
Improving: 7*	.539	.090	.245	**.696**	.359	.563	.545
Advocating: 6*	.484.	-.160	.425	.655	.163	.617	.553
Collaborating:15*	.453	.008	.296	.611	.270	.537	.438
Advocating: 1	-.020	**.909**	-.002	.272	**.901**	.343	.813
2	-.064	**.832**	.195	.306	**.887**	.487	.813
3	.255	**.687**	.020	.486	**.776**	.422	.665
4*	.361	.417	.080	.537	.565	.433	.464
Improving: 12	-.175	.071	**.850**	.294	.347	**.786**	.641
11	-.006	.124	**.742**	.424	.413	**.788**	.633
9	.182	-.024	**.682**	.533	.302	**.769**	.614
10	-.060	.184	**.640**	.335	.415	**.681**	.492
8*	.168	.180	.546	.513	.448	**.705**	.552
Collaborating: 18*	.454	-.065	.489	.689	.272	.701	.637
Advocating: 5*	.203	-.055	.442	.417	.183	.527	.307

Note: Major loadings for each item are bolded. Items marked with an asterisk * were excluded from analysis.

The results of this analysis support the use of the remaining eleven items as part of a rating scale of leader behaviors. Further testing is required before these components may be used as separate sub-scales of categories of behavior however.

Following the tests of validity on the LVPI and to address part b) of research question 1, the ratings of the importance of the 11 remaining behavior items by the school leaders and teachers were compared using a Chi-square technique to determine if the

independence or difference in the frequency of ratings between the two groups was significant. To address the second research question (i.e., whether there is an association between attitude and perceived level of importance of each leader behavior), the Kruskal-Wallis test was used. In this procedure, the three ratings from the LVPI instrument were used as groupings to compare the mean rankings of the attitude scores on the ATTAS-mm for all participants in each group. A Mann-Whitney U post-hoc test was applied to the rankings to determine which of the three groups were significantly different from one another.

Open-ended Question Concerning Reasons for Valuing Leader Behavior.

At the end of the LVPI, participants were invited to provide a brief typewritten comment to indicate why leaders' behaviors that demonstrate support for inclusion may be important to them (Appendix G). This opportunity for participants to comment was designed to identify some common and divergent themes within the reasons why teachers and leaders may value specific belief behaviors of school leaders and why school leaders may feel compelled to exhibit these behaviors. There was a 275-character limit (approximately 50 words) to facilitate a thematic content analysis of responses to identify common themes among these statements. Emergent coding techniques were used to review all responses and identify words such as "support" that occurred most frequently (Stemler, 2001). A key-word in context search revealed additional consistency in the use of those words in sentences written by the participants. Similar responses were grouped into categories. From these categories, distinct patterns of responses or themes emerged.

Procedures for Data Collection

In the following section the procedures for data collection are explained. Ethical approval of the study was received from The University of Western Ontario (Appendix B) and from each of the participating school boards. An invitation to participate (Appendix C) was sent by electronic mail (e-mail) from the central board office to all elementary school teachers, principals, and vice-principals in the boards. A copy of a Letter of Information (Appendix D) was attached to that invitation e-mail along with a link to a secure online survey.

The Letter of Information outlined the purpose of the study and briefly described the online survey that was to be completed by participants. This letter contained a link to a secure online survey site hosted by Western University using the Qualtrics online survey software. Participants were able to access the site for a specific time period as outlined in the letter. In the letter, participants were advised also that there was no method of linking the completed survey to individual participants and results of the study in the form of anonymous, aggregated data only would be made available to all members of their school board.

Those who decided to participate accessed the link, completed the survey questionnaire, and submitted it electronically by pointing and clicking in a designated area of the questionnaire. No further action on their part was required.

Summary of Analysis Procedures

After the closing date of the online survey, data was transferred from the Qualtrics survey site to an encrypted database using version 23 of the Statistical Package for the Social Sciences (SPSS) data analysis program. The data were checked for missing cases and variables. Cases were deleted if participants had not indicated their role or completed both the attitude scale and the behavior rating checklist. The SPSS program was used also to conduct factor analyses procedures for validity on both the ATTAS-mm attitude measure and on the LVPI behavior checklist.

For missing data on individual variable items, rather than estimate data or replace with mean values, list-wise or pair-wise exclusion was selected for subsequent analysis as appropriate. For example, if any variable was missing on the attitude scale, no total score would be obtained for that case (list-wise deletion). If any variable was missing on the behavior rating checklist, that case would be excluded only from the analysis of that item (pairwise deletion). Total scores were calculated for school leaders and teachers on the ATTAS-mm attitude measure items to prepare for the ANOVA, and this total was recorded as a new variable in the dataset.

To test the hypothesis that teachers and leaders would differ in their attitudes toward inclusion, total scores of the teachers and the school leaders on the ATTAS-mm attitude scale were compared using a one-way analysis of variance significance test (ANOVA) for independent samples to determine whether any significant differences exist between the attitude scores of these two groups. To test the hypothesis that the

teachers and leaders would differ in their ratings of the importance of specific behaviors of school leaders, a Chi-square test for independence or difference in the frequency of ratings between the two groups was conducted on each of the 18 items on the adapted Administrative Responsibilities section of the LVPI. To observe an association between attitude scores and ratings of leader behaviors, a Kruskal-Wallis test was conducted.

Responses to the open-ended question at the end of the survey were transferred from the database to a document in MS Word format. No information other than the number assigned to the survey was included with the responses in this document for the initial analysis. A thematic content analysis was conducted on the typewritten responses of participants to indicate their reason(s) why leaders' behaviors that demonstrate support for inclusion is important to them. This analysis consists of a keyword identification and emergent coding technique to review all responses and identify words that occurred most frequently (Stemler, 2001). A key-word in context search revealed additional consistency in the use of those words in sentences written by the participants. Similar responses were grouped into categories. From these categories, distinct patterns of responses or themes emerged.

The Atlas.ti version 6.2 qualitative analysis program (Scientific Software, 2012) was to have been used to facilitate the coding of themes for the content analysis; however, manual coding was possible due to the relatively low number of brief responses received. This analysis was designed to identify some common and divergent themes within the reasons why teachers and leaders may value behaviors of school leaders and why school leaders may feel compelled to exhibit these behaviors.

Ethical Protocols

Inclusion criteria. All elementary school teachers, principals and vice-principals who are certified by the Ontario College of Teachers (OCT) and are currently employed by one of the participating rural school boards were eligible to participate in the study. Education staff within the school boards who were neither elementary school teachers nor elementary school principals or vice-principals, as certified by OCT, were excluded. All of the participants were 18 years of age or over.

Risks and benefits. Participants did not benefit directly from participating in this study. There were no risks to participation; however, completion of the survey required a short time commitment of approximately 15 minutes. Conversely, there was no limit to the length of time a participant was allotted to complete the online survey.

Consent. None of the members of the research team recruited potential participants. Participants received a notice by electronic mail from the central board office containing basic information about the study and the Letter of Information as an attachment. Participants freely chose to open and read this letter and visit the secure web site where the online survey was available. There was no consent form to complete; completion of the survey was taken as an indication of consent to participate. Participants were advised in the Letter of Information that they could refuse to answer any questions on the survey, and they could withdraw from the survey at any time without submitting the form. However, participants were advised on the demographic information question

area of the survey that they must indicate their role within their board to proceed to the remainder of the survey.

Confidentiality and data security. Data was recorded by means of a secure online survey database using Qualtrics, an approved provider for Western University. The data thus collected was encrypted and stored electronically on a secure network drive at the Faculty of Education at The University of Western Ontario. No information, such as names or birthdates that could identify participants, was collected. Data will be kept for a minimum of five years from the date of publication of this report, and after that time, the electronic files will be destroyed according the university's policies.

Timetable

The study was conducted according to these timelines: In May 2015, ethical approval was received from Western University. In May and June, 2015, ethical approval and permission were obtained from four of the five eligible rural school boards to conduct the study. In October, 2015, supervisory personnel at the remaining four boards were contacted and advised that, due to ongoing labor uncertainty in school boards in the province, data collection would be delayed until January, 2016. In January, 2016, the invitation e-mail message was sent from the board offices to all elementary school teachers, principals, and vice-principals. The online survey was available for completion between mid-January and mid-February. The e-mail message was sent from the central board offices to the eligible participants again in early February to ensure that all those who were interested would have an opportunity to participate. In mid-February 2016,

data was exported to an encrypted database compatible with the SPSS analysis program, and detailed analyses were conducted.

Anticipated Challenges

There were a number of possible challenges and limitations to the proposed study. There were no intentional incentives for teachers or school leaders to complete the survey beyond having access to a report of the findings; for this reason, there was a risk that the total number of participants would fall short of the requirement for a representative sample of the population. Also, the Administrative Responsibilities section of the LVPI behavior rating scale has been adapted from the original; although procedures were conducted to establish local validity, findings are considered to be exploratory rather than definitive in nature (American Educational Research Association, 1999).

Conclusion

The results of this study may provide school leaders with additional insights into those behaviors that are most valued by educators as proof that inclusive education practice is an enduring culture within their schools. The literature (Pompeo, 2011; Valeo, 2008) has shown that there can be a misalignment between behaviors that school leaders believe are effective in demonstrating their beliefs and those actions or statements that teachers value as important evidence of the validity of the culture that has been espoused by their leader. The study rationale, the findings, and the discussion may shed some light on the importance of attending to the process of cultural change, as well as its outcomes. The move to inclusive education involves changing not just how or what teachers do, but

it also involves articulating the fundamental goals or values underpinning the social justice paradigm aspirations of Canadian society as a whole. Increased awareness by school leaders about the connections between their actions and the perceptions of the value of those actions can be a critical factor in the development of a school or education organization that will reflect the values of the larger society it serves.

CHAPTER 4

Results

The collection of survey data to address the three research questions began with the school boards in southwestern Ontario early in the new year of 2016. This chapter contains a description of the overview of the data collection process, preparation for analysis, and the results of the procedures that were used in the analyses of the data. Analyses were designed to compare school leaders and teachers on their overall attitudes toward inclusive education practices and their perceptions about the importance of school leaders' behaviors that are intended to support these practices. Analyses on these measures also took place with the combined group to determine if there is an association between one's attitude toward inclusive education and the perceived importance of specific leader behaviors. Finally, a qualitative analysis was conducted on the participants' responses to an open-ended question to identify some common and divergent themes within the reasons why teachers and leaders may value behaviors of school leaders and why school leaders may feel compelled to exhibit these behaviors.

Data Collection and Preparation for Analysis

In compliance with ethical procedures approved by the researcher's institution, separate electronic mail messages were sent in early January 2016 to a supervisory contact within each board who had agreed to participate in the study. Supervisors were asked to distribute this message via their school board's electronic mail system. The message contained the text of an invitation to all elementary school principals, vice-

principals, teachers, and resource specialists as potential participants. Included with the message was a copy of the Letter of Information and a link for participants to gain access to the survey on a secure web site. The invitation e-mail message and the Letter of Information may be viewed in Appendices C and D respectively.

On February 23rd, the day following the closing date of the availability of the link to the survey, the information collected was downloaded from the Qualtrics site to an encrypted database that was compatible with the Statistical Package for the Social Sciences (SPSS) analysis program. The data was checked for errors and missing information. There were very few errors as a result of the response method of the online survey; participants needed only to click the mouse over the appropriate response and this was recorded automatically. Methods of addressing missing data are discussed in more detail in the following sections.

Sample

Response Rate, and Criteria for Elimination. Between January 20 and February 22, 2016, 488 elementary school personnel responded to the online survey. Unfortunately, 35 people did not provide information about their role, and two people indicated that they were members of the secondary school panel, which disqualified them from participating in the study. Of the remaining 451 participants, 23 people had not completed either the attitude measurement instrument or the behavior importance instrument. A total of 60 cases (12.7%) were therefore deleted from the original response set of 488, leaving 428 cases in the analysis database.

Achievement of Sample Size. Of the five completely rural school boards in southwestern Ontario that were invited to participate in the study, one public board was unable to participate. Of the remaining four boards, there was over-representation of teachers from the public board and under-representation of teachers and school leaders from the three Catholic boards. The group of teachers includes those who indicated their role either as teachers or resource specialists within the school or leaders who endorsed their role as principals or vice-principals. Table 7 shows the projected and actual number of responses.

Table 7

Sample Sizes: Projected and Actual

	Projected Sample Size			Actual Sample Size			
Board Type	*Teachers*[b] 20%	*School leaders*[c] 50%	*Totals*	Teachers 17%	School leaders 43%	Totals	Percentage of projected
English Public	*270*	50	*320*	363	29	392	
English Catholic[a]	*196*	*31*	*227*	30	6	36	
Total	*466*	*81*	*547*	393	35	428	78.3%

Note: [a]All three Catholic boards participated in the study. Data collected did not specify boards, therefore these have been aggregated.

[b]Teachers projected sample size is 20% of the estimated population of both teachers and resource support personnel with teaching qualifications.

[c]School leaders projected sample size is 50% of the estimated population of both school principals and vice-principals.

Description of Sample. Some specific information about the participants was gathered to acquire detailed descriptive data about the sample: type of school board (English public or English Catholic); role within the board; gender; age; teaching experience; current grade level; and, familiarity with people with exceptionalities. Information about participants' roles and the size of the group of teachers and leaders was

critical to conducting the comparative analyses for the study. Details about this information are presented here and summarized in Table 8 in Appendix L.

Role. Of the total group of 428 participants, the teachers' group was by far the largest at 393 or 91.8%, comprised of 377 teachers and 16 resource specialists. The 35 members of the leaders' group included 24 school principals and 11 vice-principals. Due to the low numbers in three of the four participant groups, no further sub-groupings of participants was undertaken to minimize the possibility of identifying a participant by combination of characteristics.

Board. The majority of the 393 participants in the teachers' group had positions within the English public school board; there were 351 teachers and 12 resource specialists, totaling 363 or 92.4% of the total group of teachers. Most of the 35 school leaders were with the public board as well (82.9%): 19 of those were principals and 10 were vice-principals.

Gender. The teachers' group was predominantly female at 357 or 90.8% of the total number in this group. The leaders' group was also predominantly female at 25 or 71.4% of the total of this group.

Age. Participants indicated their age range as between 21 to 29, 30 to 49, or 50 years or more. Only three people declined to provide this information. Age range in both groups was largely distributed between the two categories of age, 30 to 49, and 50 plus years. However, while almost 70% of the teachers in the study are aged 30 to 49, participants who are leaders are more evenly distributed between the two higher age

ranges at 48.6% and 51.4% respectively. A number of teachers were younger, falling between the ages of 21 and 29 years (7.7%). Therefore, school leaders in this sample were not surprisingly, somewhat older than the group of teachers.

Teaching experience. Participants indicated their years of teaching experience by selecting one of three categories: from 1 to 4 years, 5 to 10 years, or more than 10 years. Almost all of the school leaders (91.4%) reported having more than 10 years of teaching, while such experience was more wide-ranging among the teachers. Although the majority of the teachers' group (65.9%) also had more than 10 years of experience, 86 teachers (21.9%) had been teaching for only 5 to 10 years and 48 teachers (12.2%) were somewhat novice, teaching for less than 5 years.

Grade level teaching. Participants were asked to indicate whether they were currently teaching at the primary level (Junior Kindergarten to Grade 3), junior level (Grades 4 to 6), intermediate level (Grades 7-8), or Other. The majority of the school leaders reported "Other" (74.3%) to reflect their non-teaching role. Vice-principals were more likely to combine teaching with administrative duties, and 5 of the 9 members of this leaders' sub-group indicated teaching duties at one of the grade levels. For the teachers, grade-level responsibilities were largely divided between the primary (52.9%) and junior levels (22.9%), with the remainder of this group teaching in the intermediate level (10.4%) and "Other" categories (13.8%).

Encounters with people with exceptionalities. In the final question on the demographic portion of the survey, participants were asked to indicate all of the ways in

which they had encountered people with disabilities, described broadly on this survey as "exceptionalities". The total percentage of responses sums to greater than 100% because participants could select more than one category if applicable. By far the greatest number of teachers (98.7%) and leaders (100%) had such encounters at school, with family and friends comprising the next most frequent encounters for teachers at 59.3% and 57.7% respectively and for leaders at 68.6% and 65.7%. A number of teachers (12.9%) and leaders (20.0%) identified themselves as having exceptionalities, while 3.0% of teachers and 8.6% of leaders chose the "other" category. Details provided by participants who selected "other" indicated such encounters within the larger community of church, public places, volunteer, or other work experience. All participants from both groups of teachers and leaders indicated that they had had some form of encounter with someone with an exceptionality.

The sample of teachers then is predominantly female, between 30 to 49 years of age, having 10 or more years of teaching experience, and currently teaching at the primary or junior level. Leaders are also predominantly female, more likely to be over 50 years of age with more than 10 years of teaching experience and assuming a non-teaching role at the school. Virtually all of the participants have encountered people with exceptionalities at school, and a majority have family or friends who fit this description as well. A few have exceptionalities themselves, and fewer still have had such encounters in the community. It is apparent that everyone has encountered someone with an exceptionality at some point, usually at school.

Measures

Attitude Measure. To address part a) of research question 1, a one-way between groups analysis of variance (ANOVA) was conducted to explore any difference between teachers and leaders on total attitude scores as measured by the Attitudes Toward Teaching All Students with Mild to Moderate Disabilities or the ATTAS-mm. All assumptions were met concerning the suitability of the sample for the ANOVA analysis: observations for the attitude measure were taken from a random sample survey of the population, and the members of the two groups were independent from each other. Both groups had more than 30 members in each, and Levene's test confirmed the homogeneity or similarity of the variances of the scores for each group (p=.30).

The ATTAS-mm is scored such that higher scores represent *lower* attitudes. There was a statistically significant difference in attitude scores for the two groups: F (1, 415) = 62.71, p = .00. The teachers' group scored higher (M = 28.89, SD = 7.81) than the Leaders' group (M = 17.79, SD = 6.63) which would indicate a lower level of attitude in the teachers' group. Results of the analysis are summarized in Table 9 and 10.

Table 9

Descriptive Statistics for One-way ANOVA for ATTAS-mm Attitude Measure

Group	*n*	*M*	*SD*
Teachers	384	28.89	7.81
Leaders	33	17.79	6.63
Total	417	28.01	8.27

Note: Cases were excluded from analysis if there was no data in any of the 9 items.

Table 10

Summary Table for One-way ANOVA for ATTAS-mm Attitude Measure

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	*F*	Sig.	Effect *d*
Between Groups	1	3742.51	3742.51	62.71	.00	.13
Within Groups	415	24766.47	59.68			
Total	416	28508.98				

This finding supported the hypothesis for part a) of research question 1 that leaders would demonstrate a higher attitude towards inclusive education. Despite reaching statistical significance, however, the strength of this difference or effect size *d*, calculated using eta squared (sum of squares between groups divided by sum of square of totals groups), was .13; this effect is considered to be low (Cohen, 1988).

Participant Ratings of Leader Behaviors. To address the second part of research question 1, a Chi-square test (χ^2) for independence or difference between the responses of teachers and leaders was conducted on the participant ratings of the importance of specific leader behaviors adapted from the LVPI checklist (Louisiana Department of Education, 2005). The Chi-square test is a non-parametric or distribution-free test that can be used to detect differences between groups on ordinal or ranked scales. The samples must be randomly selected and independent; that is, no participant can be a member of both groups to be compared such as teachers or principals as in this study. Also, the number of observations or participant responses per cell or category must not be less than 5 (Howell, 2004).

A table of cross-tabulations was created for each item to show the number of teachers and leaders who selected one of the three levels of perceived importance of each behavior (a 2 by 3 table). For several of the items, there were fewer than 5 cases in one of the cells of the table that indicated the number of teachers or leaders who selected "not important" or "somewhat important" as a response. The low number of cases in these cells violated the third assumption required to confirm the appropriateness of the Chi-square test for this analysis. Instead, a 2 by 2 table was created in which ratings of "not important' and "somewhat important" were grouped together into the "not/somewhat important" response category. Items that had cell frequency counts of less than 10 even after combining categories were assessed for significance by referring to the Fisher's Exact Probability Test statistic as well as the Yates Continuity Correction statistic, which compensates for any overestimation of the Chi-square value when used with a 2 by 2 table (Pallant, 2010).

The Chi-square tests for independence on the 2 by 2 table for each item indicated differences between participants' role and their rating of specific leader behaviors. School leaders tended to select "very important" as a rating on all of the items more often than teachers whose responses were distributed for the most part over the "very important" and "somewhat important" categories of response; however, the higher rating by leaders was significant only in 5 of the 11 items, or about one-half of the total list. The significant differences appeared in items across two of the three factors that concern leader behaviors to advocate for inclusive education and for school improvement. Teachers and leaders did not differ in their rating of behaviors associated with

collaborating with others; these were rated highly by both groups. Cramèr's phi effect size statistic shows that the difference in ratings between the leaders and teachers on these five items, while significant, is considered to be small (phi <.21). Table 11 shows details for those behaviors that were rated differently by teachers and leaders. The results of this analysis procedure for all items are summarized in Table 12 in Appendix M.

Table 11

Chi-Square Table for Leader Behaviors Rated Differently on Importance by Teachers and Leaders

Leader Behavior	Rating of Importance				
	"Not/ Somewhat"		"Very""		X^2
	% of each group				
	Teacher	Leader	Teacher	Leader	X^2
Factor 2: Advocating for Inclusive Education					
The principal:					
1. Has an unwavering belief in the value of inclusive schooling and considerable knowledge and skills for moving the concept to practice.	26.2	5.9	73.8	94.1	5.89*
2. Is a visible and vocal advocate of inclusive practices. S/he communicates unambiguously to staff members the expectation for all school practices to foster inclusion.	25.1	0	74.9	100.0	9.74**
3. Encourages staff members to take risks to foster inclusive schooling, supporting them even when dilemmas arise.	23.6	3.0	76.4	97.0	6.36**
Factor 3: Incorporating as a School Improvement Initiative					
11. Ensures inclusive practices are aligned with school improvement efforts.	33.8	12.1	66.2	87.9	5.58*
12. Ensures an expectation of continuous improvement.	28.7	2.9	71.3	97.1	9.35**

Notes: Teachers' group n = 386, Leaders' group n = 34. Total n = 420, df=1.

*p<.05. **p<.01. Cramer's Phi indicates that all significant differences are low effect (<.21).

Association between Attitude Score and Ratings of Leader Behavior. To address research question 2, a Kruskal-Wallis Test was used as a non-parametric or distribution-free alternative to the analysis of variance (ANOVA) to determine if there

was a significant difference between attitude scores of the entire group of participants on the ATTAS-mm across the three ratings of perceived importance of the leader behaviors. The ratings are: not important (1), somewhat important (2), and very important (3). This test permitted an examination of attitude measure scores which represent a continuous variable across three or more groups; the groups in this case were not determined by participants' roles, but instead by which one of the three ratings they had chosen for each behavior. Attitude scores were converted to ranks and the mean ranking of scores for each group was compared. This procedure assists researchers to determine whether the highest ranked scores on the attitude instrument are concentrated within one particular rating group (Howell, 2004).

As occurred in the Chi-square analysis of behavior ratings by participant roles, there were a only few items for which the rating of "not important" had been selected by a very low number of participants. To compensate for the low number of observations in that group, the ratings of "not important' and "somewhat important" were grouped together again into the "not/somewhat important" response category as had been done for the Chi-square analysis of participant ratings of behavior by their role as teacher or leader. Rather than repeat the Kruskal-Wallis test which is designed to compare the rankings of scores on a continuous measure among three groups, the Mann-Whitney U Test was used to compare these rankings between two groups.

The reduction in the number of groups from three to two would have permitted a simple comparative analysis of the significance of difference between means of the attitude scores for each group. However, the mean indicates only the central tendency of

a group of scores, and it was necessary to demonstrate that when the scores are ranked from lowest to highest, there may be a concentration of one type of score within one group. Such rankings may provide evidence that such a concentration "doesn't look like a very likely event if the two populations don't differ" (Howell, 2004, p. 470).

The results of the Mann-Whitney U test revealed significant differences in mean rankings of the attitude measure scores among participants who selected different levels of importance ratings. The results revealed that higher mean ranks of attitude scores, or lower attitudes, were associated with lower rankings of the importance of specific leader behaviors for all 11 behavior items. This finding is similar to attitude research studies in which negative attitudes were associated with lower perceptions of the value of relevant behavior and thus a reduced intention to perform it (Ajzen, 1985). Effect sizes indicated only a small (d<.21) to medium effect level (d<.5) for all of the significant differences however. Table 13 in Appendix N summarizes the results for significant differences observed in all 11 behavior ratings.

Qualitative Analysis of Responses to Open-ended Question on Survey

To address research question 3, participants' typewritten responses from the final question on the survey were reviewed and coded to identify some common and divergent themes within the reasons why teachers and leaders may value behaviors of school leaders and why school leaders may feel compelled to exhibit these behaviors. These responses were transferred from the database to a text document using the Microsoft Word program. For the initial thematic analysis, no information other than the number

assigned to each survey response was included in the document which might have identified the role of the responder, his or her overall attitude towards inclusive education, or ratings of the importance of specific behaviors of leaders. After the initial coding however, the responding participant's role information was matched with each comment. Response length was limited to 275 characters, or about 40-50 words. Of the 76 responses provided, 11 appeared to end abruptly, indicating that these participants likely had more information to contribute beyond the word limit of the response area.

There were 76 responses in total from the pool of 428 participants (17.7% of all responses). Due to the brevity of the comments, as well as their relatively low number, the responses were reviewed and coded manually by the researcher (Cresswell, 2008) without the use of a qualitative analysis program such as Atlas.ti. An emergent coding technique was used to establish categories of response based on word frequency counts. From these frequent or key words, a key word in context search was conducted in subsequent readings to test for the consistency of usage of those words within the sentences in each response. By noting the similarities and differences in comments involving the keywords, a list of categories was created with which to organize the responses and to observe patterns or themes (Stemler, 2001, para 10-13).

On the initial read-through, the frequency of the use of specific keywords was apparent; these were confirmed with the creation of a word cloud and through the "find' feature of Microsoft Word to locate these words in specific comments. The most frequent words used in all of the comments were: support; students; principal; inclusion; and, teachers. See Table 14 for a frequency table of specific words, along with a

summary of the coding categories and themes that emerged from the keyword analysis. Responses containing these words were copied and pasted into separate documents. These comments were then categorized according to common elements among them that would indicate key reasons why leader behaviors were important.

Table 14

Key Word in Context Analysis of Responses to Open-ended Survey Prompt[a]

Keyword and Frequency	*Category of Response*	*Theme*
Support (39)	• As a critical element • Types of support • Lack of support • Loss of benefits of traditional "pull-out" model of assisting of students with special needs	Leader behaviors are important and provide critical types of support. Some feel that support for inclusive education means the loss of some of the benefits of established approaches to meeting students' needs.
Students (37)	• Team approach needed • Need for a specific environment • Meeting needs is complex • Constraints on principals	Collaborative or team approach is essential due to the complexity of meeting all students' needs in the classroom, but this may be limited by constraints imposed from board policies.
Principal (33)	• Promoting inclusive education	By promoting inclusive education the school leader's behavior benefits the entire school. Includes being the "face" of the school; being part of the process; sending consistent, positive messaging; and, upholding the values of inclusive education.
Inclusion (28)	• Different forms of the term were used, e.g. inclusion, inclusive education or strategies, inclusivity	The concept of inclusion as it is referred to by teachers and leaders indicates that the underlying principles are generally well-understood by both groups.
Teachers (22)	• Need a safe environment • Need encouragements • Need acknowledgement	Leader's role is to protect, develop, and celebrate teachers' efforts. Specific behaviors not articulated; may be determined by the local context.

Notes: [a]Wording of prompt: "If there is a specific reason why the above behaviors are important to you, please describe briefly".

Support behaviors. The key word "support" occurred 39 times in 26 responses. Categories identified from the review of the keyword "support" in context were: leader support as a critical element; the importance of specific types of support; lack of support for inclusive education; and, support for a "hybrid" model of inclusive education that included the availability of some special services for students. Each of these is summarized and illustrated with specific examples.

Leader support is critical to success. More than one-third of the 76 responses (29 comments) indicated that the behaviors were important because inclusive education would work *only* if the principal was supportive or instrumental in its success. This view is evident in a few exemplary comments. Survey response number and participant's role appear in brackets following each comment.

> *Inclusion won't be possible or sustainable without the support of the principal* (#23, Teacher).
>
> *Without active administrative support for inclusion, it's less likely to happen. Leadership is required* (#100, Teacher).
>
> *Successful implementation of inclusive education requires consistent, positive messaging that is supported throughout individual schools and the system as a whole* (#479, Principal).

Types of critical supports. Again, approximately one-third of the comments detailed specific types of supports that were necessary:

- Setting the tone or promoting the values, modeling the behavior, leading by example, advocating, positive attitude (16 comments).
- Demonstrating knowledge (6 comments)
- Allocating resources (financial, educational assistance – 5 comments)

- Providing opportunities for collaboration (4 comments)
- Maintaining active involvement (2 comments)

Lack of support for the principles of inclusive education. In subsequent reading of the responses, it became evident that there were those who were not in favor of the principles of inclusive education, which had been defined on the survey instrument as "the integration of students with mild to moderate disabilities into regular classrooms for 80% or more of the school day" (Gregory & Noto, 2012). The comments indicating the participant's lack of support reflected two main views: first, that inclusive education does not meet either the regular or exceptional needs of the students in the class (7 comments) and second, that this approach makes too many demands on the teachers (5 comments). Participants who did not support the concept of inclusive education often provided reasons for their lack of support, but they did not state why specific behaviors of leaders might be important to them. A subsequent cross-referencing of these comments by participants' role revealed that these comments were made by those in teaching roles.

Support for a "hybrid" model. Seven of the comments appeared to indicate support for inclusive education somewhat tentatively, mentioning the role of special classes. Four of these appear below.

> *I strongly agree with inclusion however sometimes I think there are circumstances and situations where the students feel safer in a somewhat smaller setting and for individual attention* (#9, Teacher).
>
> *I feel that it is important for students with mild or moderate disabilities to be integrated into regular classrooms. I also feel that it is still important for them to have a special education classroom to help teach them life skills* (#214, Teacher).

> *Students that are in need of social and life skills will not and cannot get this in the regular classroom. These life skills are far more import*[ant] (#321, Teacher).
>
> *[*There is a*] classroom for students who have significant emotional, social and behavioral challenges. These students are in the regular classroom but can access [that] room at any given point when they feel overwhelmed* (#267, Teacher).

These comments suggest that, in spite of the brief definition provided on the survey, participants may feel that there is an "all or nothing" approach to inclusive education within their schools or school boards, which may have occurred as a result of the discontinuation of some student support services at the system level.

Together, these categories of responses indicate that leaders' behaviors are important because they provide critical types of support for most educators who are adopting inclusive practices in their classrooms. However, there are those who refer to their own lack of support for the practice and therefore, have not commented on the importance of leaders' behaviors that might assist the process. In describing what is tantamount to a hybrid model, some participants may be feeling the loss of the traditional special education model; alternatively, they may perceive that it has been replaced by a narrow model of inclusive education which appears to undermine some of the benefits of established approaches to meeting students' needs.

Importance of leader behaviors for students. The key word "students" was the next most frequently used word in the participants' responses, at 37 instances in 33 comments. Responses were included also for this key word in context analysis if they contained similar words such as "children" or "kids". Categories identified from the

review of comments containing this key word expressed the importance of the need for a team approach, the need to create an inclusive environment, addressing the complexity of meeting the needs of students in the regular classroom, and the suggestion that the school leader's behavior may be somewhat constrained or dictated by board-level processes.

Team approach. Several comments mentioned the need for a team approach as a potential benefit for students:

> *A school is a team and all members need to be part of that team for all students* (#44, Teacher).
>
> *It is a whole-school team effort to support these students. . .* (#217, Teacher).
>
> *The principal's support is needed - teachers should not be alone in the implementation and ongoing planning for any student* (#342, Teacher).
>
> *. . . it is important to work as a team and having principal support is vital in feeling like you are supported and able to receive support and services as needed to help serve the students best interest before becoming overwhelmed.* (#401, Teacher).

These comments align with the items on the behavioral survey concerning using a collaborative approach, inviting staff to offer input, and facilitating relationships between staff members and families (items 13, 14, 16 and 17). There were no significant differences between teachers and leaders on any of these items on the leader behaviors checklist from the LVPI; a high percentage of both groups rated all of these behavior supporting collaboration as "very important".

Creating an inclusive environment. Some of the comments concerning students also contained perspectives about the need for leaders to create an inclusive environment:

> *Schools should be a safe and inclusive environment for all students and staff, and a principal is key to setting this tone* (#17, Teacher).
>
> *To foster a work environment that helps all students and teachers to be caring, kind, and to show appreciation for the little things . . .* (#221, Teacher).
>
> *All children have the right to a complete education in an inclusive environment where all students are considered to be important contributing members* (#458, Principal).

Appreciating the complexity of meeting students' needs. Another theme that emerged in some comments concerning students and the importance of leaders' support behaviors was the need for a greater appreciation – by leaders and others - of the challenges facing teachers in meeting all students' needs. The comments seem to echo the findings of research (Gokdere, 2012, Specht & Bennett, 2014) indicating that while teachers are willing to accommodate all students, they are concerned about their abilities to accomplish this goal.

> *. . . without the support of the principal and the finances to support the needs of the individual students, . . . inclusion becomes a stress on teacher resources and energy* (#23, Teacher).
>
> *The principal needs to be part of the process. It cannot be left to the individual teacher who has these students in his/her class to figure out . . . in isolation.* (#44, Teacher).
>
> . . . *EA* [educational assistant] *support is absolutely necessary. Otherwise the teacher spends 80% of his/her time thinking about or working to include that one student* (#268, Teacher).
>
> *Disabilities differ greatly on their demand on teacher time and energy, and impact on other students* (#271, Teacher).

These and other participants expressed concern about the capacity of an individual classroom teacher to meet the needs of students with exceptionalities. For example, one teacher wrote that "teachers often feel that they have little support when a parent is upset. Some children struggle with too much sensory stimuli and being with too many people is hard on them" (#53, Teacher). This comment may indicate also that at the same point in time when teachers themselves may be struggling to maintain a positive view of inclusion, they are called upon by parents to provide a rationale and evidence for the benefit of this approach.

Constraints on leader's behaviors. A few comments acknowledged some possible constraints on school leaders to undertake important actions to implement inclusive education practice at their schools:

> *The principal is given way more credit in your above questions. The way the school board designs the special ed. system often creates many barriers for principals to access the ideas printed above. (#31, Teacher.)*
>
> *Univers*[al] *design encourages all of the above positive behaviors. Although the principal must not be an expert they do need to be aware of resources available. (#8, Teacher).*
>
> *I would like to see administration actively involved, not just on paper (#11, Teacher).*
>
> *Understanding and leadership are vital pieces in making a school community inclusive. Another vital piece is that the support be effective, not used* [just] *for covering duties. Time needs to be given for teacher and support people to converse, plan and implement . . . (#25, Teacher.)*

Participants, whose responses focused on students, indicated that leaders behaviors were important to ensure a team approach to meeting students' needs and create an inclusive

environment for the school overall. Responses were tempered somewhat with an acknowledgement by some concerning the complexity of meeting the needs of all students in the regular classroom, as well as a suggestion that the leader's behaviors may be limited somewhat by board policies.

Principals. The key words "principal", "inclusion" and "teachers" were closely bound with the comments concerning "support" and "students". However, approximately a dozen comments referring to principals, leaders, or the administration were very specific in their descriptions of the positive contributions of the leader's actions in promoting inclusive education. These comments augmented the list of critical types of support and portrayed the leader's role as being the "face" of the school; being part of the process; advocating and sending consistent, positive messaging; and, upholding the values of inclusive education.

Inclusion. Comments in this category included references to "inclusion", "inclusive", and "inclusivity" which all occurred in comments containing the other words that were used most frequently. However, the different forms of the term used imply slightly different interpretations of inclusive education; for some it meant a principal who "championed inclusion" (#2, Teacher) or who models "inclusive strategies" (#39, Teacher). For others it means an "inclusive environment" (#17, Teacher) or the act of "build[ing] inclusion into the practices of schools" (#223, Teacher) by "working to include that one student" (#268, Teacher). For these teachers, inclusive education can range from being viewed as a cause that must be fought for by devising a game plan, to a general school setup, or as something to weave into the current methods, or as an effort

that is consciously directed at an individual child. In spite of these subtle differences, these statements indicate that the school leader's role is well understood as a critical component of the movement toward inclusive education practices.

Teachers, staff, and support people. Comments were included in this key word category if they contained a reference to teachers and/or staff or support people. Those responses that were not already bound up with the comments concerning support and students mentioned teachers' need for leaders to provide a safe environment, acknowledge the key role that teachers play, and provide encouragement and professional growth:

> *Schools should be a safe and inclusive environment for all students and staff, and a principal is key to setting this tone* (#17, Teacher).
>
> . . . *Principals as leaders of the school need to work collaboratively with staff to ensure growth takes place in this area* (#223, Teacher).

Comments specified what the teachers' needs may be but contained few details about how a leader's behaviors might address those needs. This may reflect the somewhat fluid nature of the value of these behaviors which would depend on the individual teachers and the school context.

Differences in the nature of responses of teachers and leaders. Although the 76 responses received were analyzed using a key word in context coding technique to determine common themes concerning reasons why leaders' behaviors were important, it became apparent that some participants differed in their approach to the question. The majority of comments included reasons why specific leader behaviors were important to

the successful implementation of inclusive education within the school; however, some framed one or two of the key words within more general, philosophical statements about the social justice principles underlying inclusive education:

> *They are children*[;] *if we don't advocate for them, then what hope do they have, and subsequently what hope do we have as a society?* (#445, Principal).
>
> *Students with mild to moderate disabilities are human. We need to treat them as such. All students can learn and we as educators are required to help every child reach their full potential in the best way possible* (#336, Vice-principal).
>
> *Students emulate teachers and teachers emulate leaders so everyone must feel* [that] *they have a role to create something valuable that may change the world!* (#440, Principal).

After coding all of the comments, the researcher returned to the original database to match the comments with the participants' roles within their school. Although only 13 of the 76 responses were from the group of 35 school leaders, as a group, they contributed more comments proportionally (37%) than the 63 of a total of 393 teachers (16%). Of the total of 13 comments from school leaders, approximately six of these, or about one-half, contained more general reflections such as the comments above concerning the overall purpose or outcomes of the concept of inclusive education. Although there are too few of these to make inferences, the concentration of such comments within the group of school leaders who responded to this question seems to indicate that some people in this role took a more transformative approach rather than the more pragmatic approach of teachers concerning the value of specific leader behaviors. This view is evident in those statements above that contain phrases such as "hope", "potential", and "something valuable that may change the world".

Criticisms of the survey itself: Three comments were critical of the survey itself, in particular with regard to the mild-to-moderate category of disability as a frame of reference for the survey. One comment indicated that the teacher felt that "this survey is very slanted and assumes that teachers would find these behaviors important" (#398, Teacher). Participants had been invited to rate the importance of a list of behaviors on a three-point scale which appeared on the survey immediately prior to the open-ended question. This comment may have referred instead to the wording of the opinion question that followed the list of behaviors and which asked only that participants indicate "a specific reason why the above behaviors *are* important to you [emphasis added]". Instead of indicating why the behaviors are important, twelve of the participants indicated their concerns about the feasibility of inclusive education in general. Comments that indicated such concerns were addressed in the discussion concerning leader support behaviors.

Summary of Results

Overall, the responses to the open-ended question augmented the ratings of leader behaviors to reveal the reasons why some leader behaviors are considered by both teachers and leaders to be essential. These include the critical nature of specific leader support behaviors in the overall success of inclusive education; facilitating a team or collaborative approach to meeting students' complex needs in an inclusive environment; and encouraging the teachers. Some participants used the space to express their concerns about the feasibility of using inclusive education as a means of meeting the needs of students with exceptionalities, especially if there are no provisions for additional staffing

or teacher training. Others acknowledged the limits on the support that school leaders can provide which may be due to board policies.

The results of the comparison of scores on the attitude measure corroborate previous research that has observed generally more positive attitudes of school leaders than teachers toward inclusive education. From the results of the Mann-Whitney U Test to compare rankings of attitude scores by rating level of the importance of leader behaviors, a weak association was observed between positive attitudes toward inclusive education and higher perceived value of leader behaviors that support its implementation.

From the ratings of the value of leader behaviors as well as from some of the comments about why leaders' behaviors may be important, teachers and leaders clearly agree on the value of leader behaviors that enable collaborative structures to support inclusive education practices. There is an indication, however, that leaders and teachers are likely to differ on the value of advocating for inclusive education and incorporating it as an overall school improvement initiative. Finally, participants' comments about why leaders' behaviors may be important indicate that a number of different types of supportive behaviors of leaders are considered to be essential by teachers in particular if the change to a culture of inclusive education practice is to succeed in a school. Chapter 5 contains a discussion of the insights acquired from integrating these findings, implications of these findings for school leaders and some recommendations for future research that addresses the results and the limitations of the current study.

CHAPTER 5

Discussion

In the previous chapter, the results of quantitative and qualitative analyses were presented separately to address each of the three research questions concerning differences in teachers' and leaders' attitudes toward inclusive education, their assessments of the importance of leaders support behaviors, and their statements concerning reasons why these may be of particular value. In this chapter, these questions are considered further by integrating the findings from these analyses as part of the mixed-methods research design to gain a fuller understanding of the results from the perspectives provided by the participants in the study.

The discussion includes an examination of some new insights that emerged from the convergence of the empirical and the qualitative data gathered in the study. Unanticipated findings are explored, and the construction of the study itself is reviewed to identify aspects that may have enhanced or limited the scope of investigation. The strengths and limitations of the study factor in to the summary of the implications for practice and the recommendations for future research.

Addressing the Research Questions in the Findings

Attitudes. From the findings of past research (Avramidis & Norwich, 2002; Lupart et al., 2008), it was not surprising that for the first research question, a comparison of scores on the attitude measure confirmed the more positive attitudes of school leaders than teachers in the study. From the thematic analysis of responses to the open-ended

question, it appears that school leaders tended to focus more on the importance of the social justice foundations underlying behaviors that promote inclusive education, which may contribute to their more positive attitudes.

Teachers' attitudes ranged somewhat more widely, and this was reflected in their responses to the open-ended question as well. In fact, some teachers who responded to the open-ended question prefaced their comments about the value of leaders' support behaviors with a statement of cautious, qualified agreement with the goals of an inclusive approach to education. Their caution echoes the findings of past studies (Gokdere, 2012; Specht & Bennett, 2014) wherein teachers agreed with the underlying principles of inclusive education but expressed doubts about their abilities to create a truly inclusive learning environment. Participants' ratings of leaders' behaviors, and the reasons they provided in their comments, indicate some areas of agreement and also some divergence in their assessments. These similarities and differences in the value of specific behaviors for teachers and leaders and their implications for practice are discussed in greater detail in the following sections.

Behaviors. A checklist of leaders' behaviors was adapted from the Louisiana Validated Practices Initiative or LVPI (2005) for use in this study to observe differences in ratings of the importance of these behaviors by teachers and leaders. The behaviors on the adapted checklist correlate with one of three key components of leadership practice in implementing change: the creation of collaborative structures, consistent commitment and advocacy, and implementing inclusive education practices as a school improvement initiative through objective evaluations and resource allocations. Although teachers and

leaders alike indicated agreement with the value of creating opportunities for collaboration in their ratings and comments, leaders assigned more importance than teachers to all three behaviors on the checklist that expressed commitment through advocacy, and also on two of the four behaviors wherein the leader would incorporate inclusive education as an overall school improvement initiative.

Advocacy. The table of ratings of behaviors by the two groups in Appendix M shows that nearly all of the leaders in the study valued the importance of behaviors which indicate their level of commitment through advocacy efforts. Teachers' responses, however, were more distributed among the categories of importance for leader advocacy behaviors including those that demonstrate the leader's unwavering belief in the value of inclusive schooling, advocating visibly and vocally, and encouraging its implementation even in the face of uncertainty and setbacks. It may be that the perception of the value of these behaviors is somewhat role-related; school leaders and many of the teachers saw the leader's primary role as being the "face" of the school and as one who is key in setting the tone to uphold the school's inclusive values.

Teachers may have evaluated these whole-school advocacy behaviors in light of the tangible benefits for the day-to-day classroom context. One teacher stated that "it's one thing to support inclusion, but it has to be backed up". There may even be a concern, as expressed by another teacher that administrative involvement might focus on advocacy behaviors that occur "just on paper". It appears from this, and some other, comments by teachers that advocacy behaviors by leaders are important to the extent that these occur in tandem with those that have a more direct effect in the classroom, such as creating

opportunities for collaboration and ensuring the appropriate allocation of resources.

Incorporating inclusive education as a school improvement initiative. There were four relevant behaviors listed under the factor of incorporating inclusive education as a school improvement initiative. There were no significant differences between teachers and leaders on their ratings of two of these items which focused on a leader's constant search for strategies to increase access for students, and efforts to maintain a focus on the service aspect of assisting students with special needs rather than on their placement. In evaluating school leaders' behaviors that stressed the alignment of inclusive practices with an expectation of continuous school improvement, teachers' assessments varied considerably in contrast to the leaders who overwhelmingly indicated that these were "very important". Just as leaders tend to take a more transformative stance when expressing a rationale for their positive attitudes towards an inclusive school environment, teachers' ratings of the value of leader behaviors may be prompted by concerns expressed by some about the immediate effects of the implementation dip in the classroom that inevitably accompanies any major change in practice (Fullan, 2002).

The findings on both the attitude measure and the ratings of leaders' behaviors indicate that teachers in this study are generally more cautious than leaders concerning the implementation of inclusive education practices and the practical aspects of implementing this approach in their classrooms and schools. Therefore, they tended to place importance on direct supportive behaviors of leaders, such as creating opportunities for collaboration and sharing strategies for increasing the level of service and access for students with special needs. Teachers place less value than leaders on advocacy efforts or

school improvement initiatives that are focused on inclusive education unless these are followed up with those that provide tangible, short-term benefits at the classroom level.

Association between attitude and perception of the value of leader behaviors.

Differences in ratings of the importance of these behaviors was found to be associated with differences in attitude scores. On all of the items on the behavior rating scale, those who selected a lower rating were more likely to have a lower attitude score toward inclusive education. Higher attitude scores and behavior ratings were associated with the school leaders' group, while the lower attitudes and ratings were concentrated within the teachers' group. Although the effect size of the significance of all of these differences is small to medium (Cohen, 1988), the consistency of the association over all items indicates a clear pattern; those whose attitudes toward inclusive education are lower are more likely to place less importance on any behavior of a leader that promotes this change in practice.

Because teachers with a lower attitude were less likely to value any of the behaviors highly, they tended not to provide reasons in their text-based responses. Fortunately, several of the teachers did take the opportunity to comment on some elements of the school and system organization that, in their view, have contributed to their doubts about inclusive education. The concerns expressed by teachers about leaders' behaviors that promote inclusive education as a school improvement initiative provide some clues as to another component which may be hindering teachers from sustaining a positive attitude.

Comments from some teachers indicated that they perceived the school's mission primarily as skill development, ranging from "life skills" to "moral knowledge, mutual respect, and active listening". One teacher commented that "there seem to be so many students (even those not identified) requiring specialized instruction". Skill development is indeed a laudable goal of schools; however, the teacher's comment about specialized instruction may underlie an assumption about the teaching approach that is expected. Artiles and Kozleski (2016) note that "inclusive education discourse has shifted from a vision encompassing all learners to a focus on students with disabilities" (p. 5). The teacher's comment may be evidence of a "rift" rather than a "shift" in the vision of teachers and school leaders; inclusive education may be operationalized by some teachers as remediating students' perceived skills deficits case by case, and by others, including school leaders, as planning instruction to build on the different strengths and needs of all students in the school (Ontario Ministry of Education, 2013, p. 12).

It would appear then, that differences in the interpretation of the school's goals and instructional strategies may be related to teachers' feelings of efficacy in adapting to the underlying principles of inclusive education, as well as its teaching practices. A detailed discussion of the implications of these comments is included in the section concerning unanticipated findings; however, it is important to consider further the association between teachers' negative attitudes and their perception of the low value of leaders' behaviors in light of Ajzen's (1985) theory of planned behavior.

Perceptions about efficacy comprise the third component of Ajzen's (1985) theory of planned behavior, along with one's attitudes and perceptions of the cultural norm.

Teachers whose attitudes are more positive may be encouraged by a leader's supportive behaviors, but those with more negative attitudes may be more sensitive to external factors such as the dependence on the actions of others (Ajzen, 1985). Perceptions of the value of leaders' behaviors may be evaluated as having little consequence when considered in light of the larger organizational framework within which the change is occurring at the school and system levels.

Unanticipated findings within teachers' and leaders' comments contained some clues about those external factors that may be overshadowing the value of leader behaviors. These findings are considered in the next section.

Unanticipated findings: Differing interpretations. In his comparison study of the attitudes and concerns of elementary school teachers and teacher candidates in Turkey, Gokdere (2012) found that even though the teacher candidates had a higher level of knowledge about educating students with special needs due to mandatory training, they were equally concerned about their confidence or feelings of efficacy in meeting those needs. If additional training and knowledge is not mitigating the confidence levels of teachers who have concerns about their ability to accommodate all students, there must be other contributing factors.

A number of the responses to the open-ended question in the current study indicated support for school leaders' behaviors that allocate resources and provide opportunities for collaboration and planning activities. Some of the other comments, however, touched on concerns about the way in which the principles of inclusive

education are operationalized at the system level. One teacher who decried a lack of support concerning interactions with parents also worried that "we include [children who struggle] because money is not available". Another teacher cautioned that "the way the school board designs the special ed. system often creates many barriers for principals . . . The way boards use funds to create positions [forces leaders to be] gatekeepers. . . .". That teachers may be suspicious of the motives underlying the move to inclusive education, or cynical about the ability of school leaders to allocate funds with appropriate discretion at the school level, would indicate that a key component of the change process may have been overlooked by school and system leaders alike: the degree of one's perceived control over physical and social requirements of enacting those values (Lewin & Grabbe, 1945).

The number of comments expressing these concerns were not anticipated in this study. The participant sample was selected based on studies that have shown generally more positive perspectives on inclusive education by educators in rural rather than urban communities (Deng, 2008) and also for those in elementary rather than secondary schools (Irvine, Lupart, & McGhie-Richmond, 2010). It may be that regardless of school location or level, decision-making processes that exclude key stakeholders will not facilitate a culture change at the school level. Future studies that compare differing perspectives would benefit from including an examination of organizational aspects of the school systems under study.

In their discussion of the processes involved in the acceptance of new values, Lewin and Grabbe (1945) stress the value of the open expression of "the very sentiments

which are to be dislodged" (p. 63). Fullan (2002) echoes a similar view when he outlines a key aspect for school leaders leading cultural change: it is vital for the leader to understand the change process, which involves redefining resistance and using criticisms as an opportunity to acknowledge an important point and address the concerns. It is not clear how willing school leaders and teachers might be to voice such criticism; it would seem to be dependent on the degree to which they are assured of a "safe space" (Schein, 1995; 2010) within which to "be candid, to openly disagree, and to be intentional about surfacing conflicts rather than skating around them" (Senge, 2006, p. 274). Such safety implies an established trust relationship among stakeholders at all levels. Indeed, Kouzes and Posner (2002) point to the concept of trust as a critical ingredient in a reciprocal relationship in which the leader and staff reflect the new culture within their own attitudes and behaviors.

Although teachers may need to have the opportunity to question policies and processes and ideally come to trust the motives of system and school leaders, part of the reciprocity implies that these leaders in turn may need to extend a measure of trust to their staff to interpret inclusive education policies within the context of their own classrooms. Revisiting the teachers' comments that described a "hybrid" interpretation of inclusive education reveals some other unanticipated, yet diverse perspectives that contain hints about what behaviors are required from school and system leaders by teachers whose attitudes are less positive.

Under the hybrid model of inclusive education. Alternative classroom arrangements that were mentioned by four of the teachers included comments about the

advantages of having a smaller or segregated setting to ensure that students felt “safer”, received “life skills”, and could avoid feeling “overwhelmed”. A couple of others felt quite strongly that education assistants in the classroom (EAs) were “absolutely necessary” and removing EA support is “not beneficial”. From some of these comments, it appears that in general, the decisions about teaching arrangements are made with little input from teachers and minimal discussion about the connections to learning outcomes or teaching practices. Another teacher urged that “principals need to . . . provide EA assistance so that these children are supported”, but acknowledged that “most likely this is a board decision on providing more EA support”.

That teachers feel somewhat excluded from the implementation of teaching arrangements is underscored in other comments indicating the hierarchical nature of decision making which emanates “from the top downwards” and even that a “positive attitude about inclusive education definitely comes from the top down and many teachers have little to [say]”. If teachers perceive that processes for allocations of resources and support personnel are made at “the top” by those whose motives are suspected to be more monetary than student-focused, it is logical that they would not see these behaviors as important. They would not value the school leader’s behaviors that may support the flawed implementation of these allocations.

Implications for Practice

For inclusive education to be perceived as an important school improvement initiative, leaders need to ensure that teachers have a “safe space” in which to try methods

that may increase the teachers' knowledge, skills and attitudes in teaching all students. School leaders who may find that their teachers are struggling with the concept of inclusive education can look to those behaviors that appeal to teachers and leaders alike. They may prioritize providing opportunities for those teachers to collaborate with peers and couple these with advocacy efforts that have an immediate effect on the classroom structure. The school leader may be able to negotiate with individual teachers concerning what is best within the context of that classroom; teachers may indicate that they need more access to sharing of strategies or modeling of specific teaching methods, or the encouragement to take risks and reflect on any temporary setbacks in their classrooms.

It is clear that teachers who are doubtful about the benefits of inclusive education need more from the school leader than behaviors around collaboration, advocacy and school improvement. Leaders need to be particularly aware of those behaviors that will facilitate the process of change, and that will achieve the desired outcome. Both Piaget (1970), and Lewin (1958), stress the importance of equilibrium or balance between one's current and future goals and assessing these by reflecting on the value of existing or new approaches. Just as the principal in Weiner's (2006) study challenged and supported the classroom teacher in reframing her goals for a wandering student, school leaders may need to challenge traditional teachers to plan instruction to build on the different strengths and needs of all students in their class. Such a challenge needs to be augmented with mutually agreed-upon supports, collaboration, and professional development. Most importantly, leaders must structure the environment so that reluctant teachers enjoy some measure of success with the implementation.

In Pompeo's (2011) study, different teachers valued leaders' behaviors differently; school leaders can determine what has value for a teacher through dialogue or perhaps even by having them complete a checklist of behaviors similar to the one used in this study. Teachers may be able to complete this checklist in a short amount of time, at their convenience, and add a comment concerning their individual needs. Leaders could use the checklist as a record of those behaviors that are valued by individual teachers. These checklists from teachers may prove to be more comprehensive than brief conversations that often occur during unavoidably brief and public exchanges with staff.

The teachers' comments urging the continuation of certain aspects of a more traditional teaching model may be speaking less to the value of specific leader behaviors per se, and more to their need for more evidence of collaborative structures and processes at the system level. Indeed, a number of teachers expressed some disempowerment with decisions made about what is best for the student within an inclusive framework. With improved system level processes in place, a school leader may see a more positive response from teachers to specific behaviors that promote inclusion at the school level.

When Kouzes and Posner (2002) urge leaders to "model the way" (p. 14), this implies that there is more to good leadership than just modeling or supporting desired practices such as inclusive teaching. They are referring also to the need for the creation of a structure within which leaders and teachers can thrive and which itself is more inclusive. It is difficult to imagine teaching inclusively in an environment which may be unintentionally exclusionary toward its teachers and even school leaders in its own interpretations of best administrative practice. A discussion of administrative structures

and relationships that characterize many school boards and government agencies is beyond the scope of this study; however, it was not possible to dismiss comments provided by participants who struggled to reconcile the principles of social justice with perceived procedural barriers to its implementation. The role of the school and system environment in adopting a culture of inclusive education practice is addressed within the discussion of the strengths and limitations of the study, and in the recommendations for future research.

Strengths and Limitations of the Study

Strengths. This convergent parallel mixed-methods study was designed to confirm and extend the findings of previous research studies by using both quantitative and qualitative analyses. Attitude scores and ratings of the importance of specific behaviors of school leaders were analyzed from a large number of participants. A percentage of this group provided text-based comments to indicate their reasons for valuing leaders' behaviors. The findings from the analyses of both types of data gathered in this study were integrated to gain a fuller understanding of the impact of leaders' support behaviors in promoting a culture of inclusive education for teachers who exhibited different attitudes toward the concept of inclusive education.

Observing an association between one's attitude and the value of specific leader behaviors was not intended to infer a causal relationship; rather, it was intended that common themes would arise from the text-based comments of participants who held similar views about the importance of the leader's actions in promoting a culture of

inclusive education. An exploration of these themes has provided some insights into the possible underlying issues that may be creating barriers to the progress of this culture change for teachers, and which may be connected to the value of leader behaviors by some teachers. These barriers include the feelings of disempowerment expressed by some teachers in this study regarding decisions made at the system level about what is best for the student within an inclusive framework. Barriers such as these might be common to all educators regardless of contextual factors such as a rural school location or elementary school level that framed this research. Such a comparison would be the focus of a future study.

Limitations. The gains in soliciting information from a large number of participants were offset somewhat by the limitations that can occur when studying a large sample of participants. It was important to ensure anonymity for participants so that they would complete the survey with confidence and candor. Therefore, no procedures were put in place to follow up the survey responses with a semi-structured interview of participants who represented a particular segment of the population, such as new teachers. The open-ended question was designed as an alternative to an interview; however, some participants criticized the wording of question which sought to have them comment only on why leader behaviors might be important, rather than soliciting a wider range of comments and opinions about the value and the nature of leaders' behaviors that support a culture of inclusive education. Approximately fifteen per cent of the comments ended abruptly, indicating that those participants wished to contribute more than the character limits set for responses to this question. Such limits would be removed if this

study were repeated with another population.

It was anticipated that participation rates would represent the school boards in the study proportionally; however, there was over-representation from the public board in the study and under-representation from the Catholic school boards. The under-representation further restricts the generalizability of the findings to participants from a public school board in the rural area of southwestern Ontario. Participants were recruited through a general invitation within an email message that was sent to all eligible teachers and school leaders, but lack of personal contact with the researchers – again due to the preservation of anonymity – may have contributed to the skewed participation rates. If this study were repeated, a compromise would be considered in the design to include fewer participants in order to focus on targeted recruitment activities that might ensure broader representation. Both the limitations and the strengths of the current study contributed to recommendations for future research, which h are discussed in the following section.

Recommendations for Future Research

Practical Recommendations. In future studies of school leaders' behaviors that support a changing culture toward inclusive education practices, it may be helpful to consider these in light of the individual school context of the participants. In addition to assessing attitudes and the value of specific behaviors of leaders, other factors in the school's organizational environment should be examined which may be influencing both of these conditions. To accomplish this, it may be necessary to reduce the overall

numbers of participants in favor of recruiting groups of teachers and leaders from specific schools. The impact of these other factors might be assessed through an additional open-ended question on the survey or by conducting follow-up interviews with a representative sample of participants.

Recommendations for Analyses.

Attitudes. The Attitudes Toward Teaching All Students (ATTAS-mm) instrument was chosen because the test items align with one of the three widely recognized components of attitude (i.e. cognitive, behavioral and affective). However, the scores of the participants in this study indicated correlations with only the cognitive and behavioral components, with affective items correlating with the behavioral items. Before using this instrument, it should be pilot tested with a suitable sample of the population to ensure that the results are similar to those achieved in validation studies conducted by its creators, Gregory and Noto (2012).

Behaviors. The Louisiana Validated Practices Initiative (Louisiana Department of Education, 2005) was adapted for this study to include only one of the eight sub-sections which contained a list of 18 behaviors from the Administrative Responsibilities section. This sub-section was chosen because the items appeared to address the broad areas covered by other checklists in use, including one by the Ontario Ministry of Education (2013a) and the one published by Jorgensen et al. (2010). Eleven items were found to correlate with the components of advocacy, school improvement initiatives, and collaboration. Future studies may be enhanced by including a rating of the degree to

which these are demonstrated by the leader in the participants' schools, as well as the importance of each. The behaviors could also be ranked by participants, and their reasons for the rankings would be solicited through an open-ended question.

Conclusion

The study was inspired by assertions from well-respected researchers (Leithwood, Bregley & Cousins, 1992; Stanovich & Jordan, 1998) that the positive attitude of school leaders, as evidenced by their behaviors, is a critical factor in changing teachers' attitudes towards an inclusive school culture. It has also been stated that teachers' attitudes are generally positive, but that they lack the confidence in their abilities to implement inclusive teaching practices (Gokdere, 2012; Specht & Bennett, 2014). The study was designed to examine the attitudes of both leaders and teachers, as well as their perceptions of the value of those critical leader behaviors that may influence teachers' attitudes and thus their practices. Some behaviors such as those that support collaboration were valued by both teachers and leaders. Other behaviors by leaders, such as advocacy efforts and actions to implement inclusive education as a school improvement initiative, were valued highly by school leaders, but teachers were more divided in their perceptions of the value of these.

Responses to an open-ended question soliciting reasons why leader behaviors are important were analyzed to observe common patterns and themes. School leaders' comments indicated that their reasons for valuing behaviors were related to the social justice foundations of inclusive education, while teachers' reasons appeared to assess

those behaviors more in light of their value in supporting the implementation of inclusive education practices at the school or classroom level.

Ryan (2007) discusses the complex notion of teachers assuming a leadership role, acknowledging its challenges and the inconclusive nature of some research that explores the relationship between teacher leadership, organizational effectiveness, and student achievement. Ryan (2007) concludes that, in spite of the difficulties, it is important for school leaders to create a school culture that supports teacher leadership. This culture can be accomplished in part by "entrenching and . . . formalizing such practices" (Ryan, 2007, p. 103). These organizational practices are, not surprisingly, somewhat similar to those that appear in the list of leader support behaviors for changing a school culture towards more inclusive education practices. These range from creating decision-making arrangements that give teachers real power as may be relevant to their role; supporting risk-taking; scheduling time for collaboration; and, arranging for mutually determined professional education about leading problem-solving activities.

Ryan (2007) concludes by stressing that "influence is more than the product of [a leader's] actions. It is best understood as a distributed organizational practice that is 'stretched over' . . . tools, language, people and relationships" (p. 105). The advice of the school leader interviewed in the study by Hoppey and McLeskey (2013) is succinct: "If [school leaders] want to get trust, you've got to give trust" (p. 249) by ensuring that this value is reflected in all actions and behaviors that support a changing the school culture.

REFERENCES

Ajzen, I. (2011). The theory of planned behavior: Reactions and reflections. *Psychology and Health, 26*(9), 1113─1127.

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes,* 50, 179─211.

Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl, & J. Beckmann (Eds.), *Action control: From cognition to behavior* (pp. 12 ─ 39). Heidelberg: Springer-Verlag.

Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior.* Englewood Cliffs, NJ: Prentice-Hall.

American Educational Research Association (1999). *Standards for educational and psychological testing.* Washington, DC: Author.

Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behavior: A meta-analytic review. *British Journal of Social Psychology,* 40, 471─499.

Artiles, A. J. & Kozleski, E. B. (2016). Inclusion's promises and trajectories: Critical notes about future research on a venerable idea. Education Policy Analysis Annuals. http://epaa.asu.edu/ojs/article/view/1919.

Avramidis, E., & Norwich, B. (2002). Teachers' attitudes towards integration/inclusion: a review of the literature. *European Journal of Special Needs Education, 17*(2), 129─147. doi: 10.1080/08856250210129056

Bartlett, M.S. (1954). A note on the multiplying factors for various chi square approximations. *Journal of the Royal Statistical Society, 16*(Series B), 296-298.

Bass, B. M. (1995). Theory of transformational leadership redux. *The Leadership Quarterly, 6*(4), 463−478.

Bass, B. M., Avolio, B. J., Jung, D., & Berson, Y. (2003). Predicting unit performance by assessing transformational and transactional leadership. *Journal of Applied Psychology, 88,* 207−218.

Basto, M., & Pereira, J. M. (2012). An SPSS R-menu for ordinal factor analysis. *Journal of Statistical Software,* 46(4), 1─ 29. doi: 10.18637/jss.v046.i04

Burns, J. M. (1978). *Leadership.* New York, NY: Harper & Row.

Canadian Association for Community Living (2014, November 15). How do we define inclusive education? Retrieved November 28, 2014 from http://www.cacl.ca/action/campaigns/no-excuses

Cardinet, J., Johnson, S., & Pini, G. (2010). *Applying generalizability theory using EduG.* New York: Routledge, Taylor & Francis Group.

Cullen, J. P., Gregory, J. L., & Noto, L. A. (2010). *The Teacher Attitudes toward Inclusion Scale (TATIS): Technical Report.* ERIC Document ED509930. Retrieved from http://eric.ed.gov/?id=ED509930

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.

Collins, J. (2005). *Good to great and the social sectors.* Boulder, CO: Jim Collins.

Cresswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Los Angeles, CA: Sage.

Cresswell, J. W. (2008). *Educational research: Planning, conducting and evaluating quantitative and qualitative research* (3rd ed.). Upper Saddle River, NJ: Pearson.

Daly, A. (2009). Rigid response in an age of accountability: The potential of leadership and trust. *Educational Administration Quarterly, (45)*2, 168─216.

Datnow, I. A., & Castellano, M. (2003). Success for all: District and school leadership. In J. Murphy, & I. A. Datnow (Eds.), *Leadership lessons from comprehensive school reforms* (pp. 187─208). Thousand Oaks, CA: Corwin Press.

Davies, A., Busick, K., Herbst, S., & Sharman, A. (2014). System leaders using assessment for learning as both the change and the change process: Developing theory from practice. *The Curriculum Journal, 25*(4), 567─592. doi: 10.1080/09585176.2014.964276

Deng, M. (2008). The attitudes of primary school teachers toward inclusive education in rural and urban China. *Frontiers of Education in China, 3*(4), 473−492. doi: 10.1007/s11516-008-0031-5

Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes.* Fort Worth, TX: Harcourt, Brace Jovanovich.

Eilers, A., & Camacho, A. (2007). School culture change in the making: Leadership factors that matter. *Urban Education, 42*(6), 616─637. doi: 10.1177/0042085907304906

Finnan, C., & Meza Jr., J. (2003). The accelerated schools project: Can a leader change the culture and embed reform? In J. Murphy, & I. A. Datnow (Eds.), *Leadership lessons from comprehensive school reforms* (pp. 83─107). Thousand Oaks, CA: Corwin Press.

Fullan, M. (2002). The change leader. *Educational Leadership, 59*(8), 16─20.

Gay, L. R., Mills, G. E., & Airasian, P. (2012). Correlational research. In L. R. Gay, G. E. Mills, and P. Airasian (Eds.), *Educational research: Competencies for analysis and applications* (10th ed., pp. 211─234). Upper Saddle River, NJ: Pearson Merrill**.**

Godin, G., & Kok, G. (1996). The theory of planned behavior: A review of its applications to health-related behaviors. *American Journal of Health Promotion, 11* 87─98.

Gokdere, M. (2012). A comparative study of the attitude, concern, and interaction levels of elementary school teachers and teacher candidates toward inclusive education. *Educational Sciences: Theory & Practice*, *12*(4), 2800─2806.

Gregory, J. L., & Noto, L. A. (2012, November). *Technical manual for "Attitudes towards Teaching All Students (ATTAS-mm) Instrument.* Paper presented at the CEC, TED online conference.

Heath, C., & Heath, D. (2010). *Switch – how to change things when change is hard*. Toronto, ON: Random House Canada.

Hogg, M., & Vaughan, G. (2005). *Social psychology* (4th ed.). London, UK: Prentice-Hall.

Hoppey, D**.,** & McLeskey, J. (2010). A case study of principal leadership in an effective inclusive school. *Journal of Special Education, 46*(4), 245─256. doi: 10.1177/0022466910390507

Howell, D. (2004). *Fundamental statistics for the behavioral sciences* (5th ed.). Belmont, CA: Brooks/Cole-Thomson Learning.

Hutchinson, N. (2002). *Inclusion of exceptional learners in Canadian classrooms: A practical handbook for teachers*. Toronto, ON: Pearson.

Irvine, A., Lupart, J., Loreman, T., & McGhie-Richmond, D. (2010). Educational leadership to create authentic inclusive schools: The experiences of principals in a Canadian rural school district. *Exceptionality Education International, 20(*2), 70─88.

Johnson, B., & Christensen, L. (2000). *Educational research: Quantitative and qualitative approaches.* Needham Heights, MA: Allyn & Bacon.

Jorgensen, C., McSheehan, M., & Sonnenmeier, R. (2010). *The Beyond Access Model: Promoting membership, participation and learning for students with disabilities in the general education classroom.* Baltimore, MD: Paul H. Brookes Publishing.

Kaiser, H. (1970). An index of factorial simplicity. *Psychometrica 39,* 31-36.

Katz, J. (2013a). Leadership and inclusion: Leading inclusive schools and the Three Block Model of Universal Design for Learning (UDL). *Canadian Association of Principals Journal,* Winter 2013, 8 ─11.

Katz, J. (2013b). The Three Block Model of Universal Design for Learning (UDL): Engaging students in inclusive education. *Canadian Journal of Education, 36*(1), 153-194.

Kellerman, B. (2004). *Bad leadership: What it is, how it happens, and why it matters.* Boston, MA: Harvard Business School Press.

Kerlinger, F. N. (1984). *Liberalism and conservatism: The nature and structure of societal attitudes.* New York, NY: Erlbaum.

Kouzes, J., & Posner, B. (2002). *The Leadership Challenge* (5th ed.). San Francisco, CA: Jossey-Bass.

Leithwood, K., Begley, P., & Cousins, B. (1992). *Developing expert leaders for future schools.* Bristol, PA: Falmer.

Leithwood, K., Jantzi, D., & Steinbach, R. (1999). *Changing leadership for changing times*. Buckingham, UK: Open University Press.

Lewin, K. (1958). Group decision and social change. In E. Maccoby, T. M. Newcomb, & E. L. Hartley, (Eds.), *Readings in social psychology* (3rd ed.), pp. 197 ─ 211. New York: Holt, Rinehart & Winston.

Lewin, K., & Grabbe, P. (1945). Conduct, knowledge and acceptance of new values. *Journal of Social Issues, 1*(3), 53─66.

Liska, A. E. (1984). A critical examination of the causal structure of the Fishbein/Ajzen attitude-behavior model. *Social Psychology Quarterly, 47,* 61─74.

Lorenzo-Seva, U., & Ferrando, P. J. (2015). Polymat-C: A comprehensive SPSS program for computing the polychoric correlation matrix. *Behavioral Research, 47*, 884−889.

Louisiana Department of Education (2005). *Louisiana Validated Practices initiative.* Baton Rouge, LA: Author.

Lunt, I., & Norwich, B. (2008). Inclusive and effective schools. In P. Hick, R. Kershner, & P. T. Farrell (Eds.), *Psychology for inclusive education: New directions in theory and practice.* New York: Routledge.

Lupart, J., Whitley, J., Odishaw, J., & McDonald, L. (2005). Whole-school evaluation and inclusion: How elementary school participants perceive their learning community. *International Journal of Whole Schooling, 4*(1), 40─65.

McLeod, S. A. (2014). *Attitudes and behavior*. Retrieved from www.simplypsychology.org/attitudes.html

Mooney, P. & Daigle, B. (2005). *Louisiana State University Validated Practices Initiative.* Baton Rouge, LA: Louisiana Statute University. Retrieved from www.slideshare.net/bdaigle/louisiana-state-university-validated-practices-initiative

Oakes, J. (2005). *Keeping track: How schools structure inequality* (2nd ed.). New haven, CT: Yale University Press.

Ontario. Legislative Assembly. The Accepting Schools Act. (2012). S.O. 2012, C.5. Bill 13, Amendment to the Education Act, R.S.O. 1990, c.E.2. Retrieved from: http://www.ontla.on.ca/bills/bills-files/40_Parliament/Session1/b013ra.pdf

Ontario. Legislative Assembly. The Accessibility for Ontarians with Disabilities Act. (2005). Amendment: 2009, c. 33, Sched. 8, s. 1.Ontario, Part I: Interpretation, Section 2, Definitions. Toronto: Queen's Printer. Retrieved from: http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_05a11_e.htm

Ontario. Legislative Assembly. The Education Act. (1990). R.S.O. 1990, c E.2. Amendment: 1991, c.10. Toronto, ON: Queen's Printer for Ontario.

Ontario. Ministry of Education (2014). *Education facts: Schools and school boards.* Toronto, ON: Author. Retrieved from: http://www.edu.gov.on.ca/eng/educationFacts.html

Ontario. Ministry of Education (2013a). *How do we know we are making a difference: A reflective tool for school and system leaders on the implementation of Ontario's*

equity and inclusive education strategy. Toronto, ON: Author. Retrieved from: http://www.edu.gov.on.ca/eng/policyfunding/equityPlacemat.pdf

Ontario. Ministry of Education. (2013b). *Policy/Program Memorandum No. 119. Developing and implementing equity and inclusive education policies in Ontario schools.* Toronto, ON: Author. Retrieved from: http://www.edu.gov.on.ca/extra/eng/ppm/119.pdf

Ontario. Ministry of Education. (2009). *Ontario's equity and inclusive education strategy: Realizing the promise of diversity.* Toronto, ON: Author. Retrieved from: http://www.edu.gov.on.ca/eng/policyfunding/equity.pdf

Ontario. Ministry of Education. (2013). *Learning for all:* A guide to effective assessment and instruction for all students, kindergarten to Grade 12. Author.

Pallant, J. (2013). *SPSS survival manual* (5th ed.). Maidenhead, UK: McGraw-Hill.

Piaget, J. (1970). Piaget's theory. In P. Mussen (Ed.), *Handbook of child psychology* (3rd ed., Vol. 1, pp. 703─732). New York, NY: Wiley.

Pompeo, M. (2011). *General education elementary teachers' perceptions of developing "interventionist" beliefs and practices* (Doctoral dissertation). Retrieved from The University of Western Ontario Electronic Thesis Repository. (Paper 242)

Qualtrics: Online Survey Software and Insight Platform [computer software]. Provo, UT. www.qualtrics.com

Rural Ontario Institute. (2013, June). Overview of Ontario's rural geography. *Focus on Rural Ontario, June 2013.* Retrieved from: http://www.ruralontarioinstitute.ca/file.aspx?id=1c38f15e-df4e-41a8-9c4d-7ad02cf55b0b

Ryan, J. (2007). Inclusive leadership: A review. *Journal of Educational Administration and Foundations, 18,* 92─125.

Schein, E. H. (1995). *Kurt Lewin's change theory in the field and in the classroom: Notes toward a model of managed learning*. Retrieved from http://dspace.mit.edu/bitstream/handle/1721.1/2576/SWP-3821-32871445.pdf

Schein, E. H. (2010). *Organizational culture and leadership* (4th ed.). San Francisco, CA: Jossey-Bass.

Scientific Software (2012). *Atlas.ti qualitative analysis software* (Version 6.2) [Computer software]. Berlin: Scientific Software.

Scruggs, T. E., & Mastropieri, M. A. (1996). Teacher perceptions of mainstreaming/inclusion, 1958─1995: A research synthesis. *Exceptional Children, 63*(1), 59─74.

Senge, P. M. (2006). *The fifth discipline: The art and practice of the learning organization.* New York: Doubleday.

Shapiro, J., & Gross, S. (2008). *Ethical educational leadership in turbulent times.* New York: Lawrence Erlbaum Associates.

Shepperd, B. H., Hartwick, J., & Warshaw, P. R. (1988). The theory of reasoned action: A meta-analysis of past research with recommendations for modifications and future research. *Journal of Consumer Research, 15,* 325─343.

Shields, C. M. (2004). Dialogic leadership for social justice: Overcoming pathologies of silence. *Educational Administration Quarterly, 40*(1), 109─132. doi: 10.1177/0013161X03258963

Sindelar, P., Shearer, D., Yendol-Hoppey, D., & Liebert, T. W. (2006). The sustainability of inclusive school reform. *Exceptional Children, 72*(3), 317─331.

Slemon, A. (1987). *Interpreting common statistical concepts: A collection of handouts.* London, ON: The University of Western Ontario.

Slobodzian, J. T. (2009). The devil is in the details: Issues of exclusion in an inclusive educational environment. *Ethnography and Education, 4*(2), 181-195. doi: 10.1080/17457820902972804

Specht, J., & Bennett, S. (2014, February). *A pan-Canadian view of pre-service teachers' beliefs about including students.* Paper presented at the Ontario Teachers Federation/Ontario Association of Directors of Education (OTF/OADE) Conference, "Creating Circles of Hope in Teacher Education", Toronto, ON.

Stanovich, P. J., & Jordan, A. (1998). Canadian teachers' and principals' beliefs about inclusive education as predictors of effective teaching in heterogeneous classrooms. *The Elementary School Journal, 98*(3), 221─238.

Statistical Package for the Social Sciences (Version 23) [Computer software]. Armonk, NY: IBM.

Statistics Canada (2011). *From urban areas to population centers.* Ottawa, Canada: Government of Canada. Retrieved from: http://www.statcan.gc.ca/eng/subjects/standard/sgc/notice/sgc-06

Stemler, S. (2001). An overview of content analysis. *Practical Assessment, Research & Evaluation, 7*(17). Retrieved March 4, 2016 from http://PAREonline.net/getvn.asp?v=7&n=17.

Stewart, J. (2006). Transformational leadership: An evolving concept examined through the works of Burns, Bass, Avolio and Leithwood. *Canadian Journal of Educational Administration and Policy, 54,* 1─29.

Storey, A. (2004). The problem of distributed leadership in schools. *School Leadership and Management, 24*(3), 249─265.

Sweet, S. A., & Grace-Martin, K. (2012). *Data analysis with SPSS: A first course in applied statistics (*4th ed.). Boston, MA: Allyn & Bacon.

Theoharis, G.**,** & Causton-Theoharis, J. (2008). Oppressors or emancipators: Critical dispositions for preparing inclusive school leaders. *Equity and Excellence in Education, 41(*2), 230─246. doi: 10.1080/10665680801973714

Thurstone, L.L. (1947). *Multiple factor analysis*. Chicago: University of Chicago Press.

Udvari-Solner, A., & Keyes, M. W. (2000).Chronicles of administrative leadership toward inclusive reform. In R. A. Villa & J. S. Thousand (Eds.), *Restructuring for caring and effective education: Piecing the puzzle together* (2nd ed., pp. 428─452). Baltimore, MD: Brookes Publishing.

Valeo, A. (2008). Inclusive education support systems: Teacher and administrator views. *International Journal of Special Education, 23*(2), 8─18.

Van den Putte, B. (1991). *20 years of the theory of reasoned action of Fishbein and Ajzen: A meta-analysis.* (Doctoral dissertation, University of Amsterdam.) Retrieved from https://scholar.google.com.

Vygotsky, L. (1978). *Mind in Society.* London: Harvard University Press.

Weiner, L. (2006). Challenging deficit thinking. *Educational Leadership, 64*(1), 42─45.

Werts, M. G., Wolery, M., Snyder, E. D., Caldwell, N. K., & Salisbury, C. L. (1996). Supports and resources associated with inclusive schooling: Perceptions of elementary school teachers about need and availability. *Journal of Special Education, 30,* 187-203.

Wolfensberger, W. (1975). *The origin and nature of institutional models*. Human Policy Press.

Woolfolk, A. E., Winne, P. H., & Perry, N. E. (2012). *Educational psychology* (5th ed.). Toronto, ON: Prentice-Hall.

Zimmerman, J. (2006). Why some teachers resist change and what principals can do about it. *NASSP Bulletin, 90*(3), 238–249. doi: 10.1177/0192636506291521

APPENDICES

Appendix A

Attitude Formation

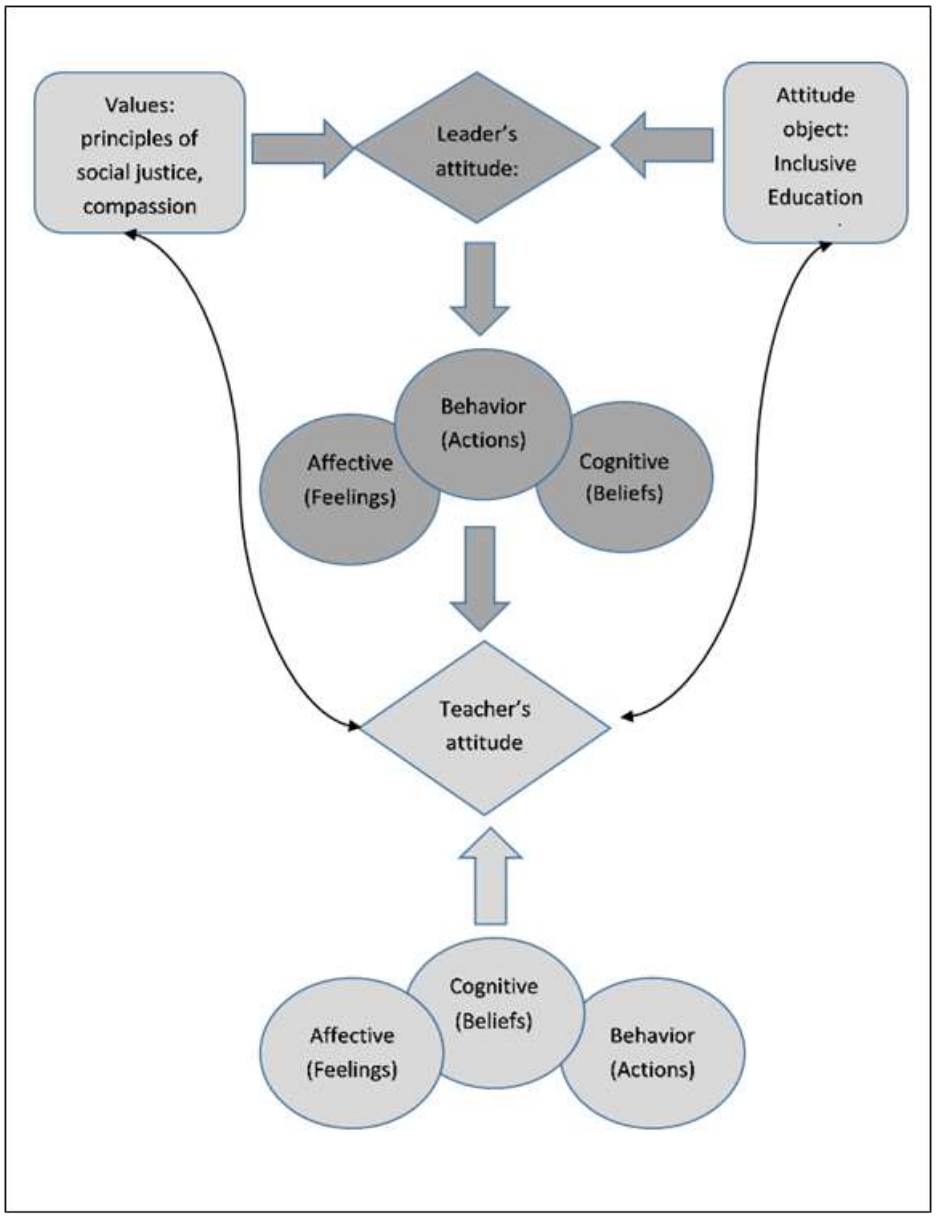

Figure 1. Attitude Components and Inter-relationship between Leaders and Teachers

Appendix B

Ethical Approval Notice

Western Research

Research Ethics

Western University Health Science Research Ethics Board
NMREB Delegated Initial Approval Notice

Principal Investigator: Dr. Vicki Schwean
Department & Institution: Education,Western University

NMREB File Number: 106615
Study Title: Teachers' perceptions of principals' belief behaviors that promote inclusive education.
Sponsor:

NMREB Initial Approval Date: May 28, 2015
NMREB Expiry Date: May 28, 2016

Documents Approved and/or Received for Information:

Document Name	Comments	Version Date
Recruitment Items	Text of email message to be sent by the school boards to elementary teachers, principals and vice-principals in their board.	2015/03/17
Revised Western University Protocol		2015/05/01
Letter of Information		2015/05/01
Instruments		2015/05/01

The Western University Non-Medical Research Ethics Board (NMREB) has reviewed and approved the above named study, as of the NMREB Initial Approval Date noted above.

NMREB approval for this study remains valid until the NMREB Expiry Date noted above, conditional to timely submission and acceptance of NMREB Continuing Ethics Review.

The Western University NMREB operates in compliance with the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (TCPS2), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario.

Members of the NMREB who are named as Investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB.

The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

[redacted], NMREB Chair or delegated board member

Ethics Officer to Contact for Further Information

Erika Basile	✓ Grace Kelly	Mina McNeil	Vikki Tran
[redacted]	[redacted]	[redacted]	[redacted]

This is an official document. Please retain the original in your files.

Appendix C

Electronic Mail Invitation to Participate

(Sent from main office of each school board)

Researchers in the Faculty of Education at Western University invite you to participate in a study to determine which behaviors are most valued by elementary school teachers, principals and vice-principals in rural areas as evidence of an inclusive learning culture at their schools. A Letter of Information is attached, which provides more detail about their study.

Your participation is voluntary, and the school board is not involved in any way in the collection of this information.

If you wish to participate, you may click on the link to access the survey:

[link appears here]

Questions or concerns should be directed to the researchers whose names and contact information appear on the Letter of Information.

Appendix D

Letter of Information

Western Education

Project Title: The Relationship between Principals' Belief Behaviors and Teachers' Perceptions of their Value in Promoting a Culture of Inclusive Education in Schools

Principal Investigator: Dr. V. Schwean, Dean, Western University Faculty of Education

Letter of Information

Today's classrooms reflect the diversity of a global world. This diversity means that students vary in what they already know, what they are ready to learn, the pace at which they are able to proceed through curriculum, and the level of adult support they require for success. Building inclusive learning communities requires that students see school as a place where they belong, are valued, and have something to contribute (Jennifer Katz, 2013). Teachers and principals are part of this community too; what do they need in order to thrive in a setting that is truly caring and inclusive? We invite you to participate in this research study to help us learn what elementary school teachers and principals in rural school areas value as evidence of an inclusive learning culture at their school. The purpose of this letter is to provide you with information required for you to make an informed decision regarding participation in this research.

The purpose of this study is to determine what principals and vice-principals do to support an inclusive school culture at their schools, and whether these behaviors are valued by teachers as evidence that their school culture is truly inclusive. An inclusive school culture is defined as one in which a) diversity of backgrounds and abilities is supported, expected and valued; b) policies and practices reflect the belief that high standards can be reached by all, and c) life goals become a reality through collaboration (Marilyn Friend, 2006).

Individuals who are teachers, principals or vice-principals in rural elementary schools in southwestern Ontario are eligible to participate in this study. Individuals who are not certified teachers with the Ontario College of Teachers (OCT) or who are teaching at the secondary school level are not eligible to participate in this study. If you agree to participate, you will be asked to access an online survey by means of a secure link. There are three parts to the survey: first is a short questionnaire in which you will select from a number of responses to gather some general information about you and your role at your school. Next you will indicate your level of agreement with 9 statements about including students with mild to moderate disabilities, and finally you will indicate the level of importance for you of 18 statements that describe what principals or vice-principals might do to demonstrate that the school is adopting an inclusive approach to education. It is anticipated that the entire task will take about 15 minutes, and will be completed in one session. The task will be conducted completely online. We anticipate that a total of 466 teachers and 81 principals will participate in the study.

There are no known or anticipated risks or discomforts associated with participating in this study. You may not directly benefit from participating in this study, but information gathered may provide benefits to society as a whole, which include an increased awareness by principals about the behaviors that are most valued by teachers as evidence of the importance of adopting an inclusive culture in their classrooms. You will not be compensated for your participation in this research. Participation in this study is voluntary. You may refuse to participate, refuse to answer any questions or withdraw from the study at any time with no effect on your employment. Please note: in the first question on the survey you will need to indicate your role within your school or board so that we can compare your responses with those of participants who have other roles. You may choose not to provide this information; however, you will not be able to proceed to the remainder of the survey. Please take this into consideration when deciding to participate in this study. There is no consent form to complete; completion of the survey is indication of your consent to participate.

All data collected will remain confidential and accessible only to the investigators of this study. No data will be collected which would allow someone to link the data and identify you, such as your name or date of birth. Other general information that will be collected, such as years of teaching experience, is gathered as categorical data and will not require you to provide specific numbers.

If you require any further information regarding this research project or your participation in the study, you may contact the principal investigator, Dr. Vicki Schwean, Dean of the Faculty of Education at Western University (email address and telephone contact appeared on original) or Grace Howell, research officer and graduate student researcher (email address and telephone contact appeared on original). If you have any questions about your rights as a research participant or about the conduct of this study, you may contact the Office of Research Ethics (email address and telephone contact appeared on original).

When the results of the study are published, these will be presented in grouped or aggregated form to further guard against identification. Your school board will receive the study results in both electronic and print format.

Thank you for considering this invitation.

Vicki Schwean, Ph.D.
Principal Investigator

Grace Howell, M.Ed.
Graduate Student Researcher

This letter is yours to keep for future reference.

References (Letter of Information)

Friend, M. (2006). *Including students with special needs: A practical guide for classroom teachers*. Boston, MA: Pearson Education.

Katz, J. (2013). Leadership and inclusion: Leading inclusive schools and the Three Block Model of UDL. C*anadian Association of Principals (CAP) Journal*, (Winter), 8─11.

Appendix E
Demographic Questionnaire

Principals' Belief Behaviors and Teachers' Perceptions: Demographic Questionnaire

Thank you for choosing to participate in our survey. We value your opinion and honest feedback. The survey will take approximately 15 minutes to complete and will be completely anonymous. You may choose not to respond to any question except the first one below; information about your role is vital to the study. A response to Question 1 below is required in order for you to proceed to the remainder of the survey. Please click the >> button below to continue.

>>

Q.1 My role within the school or board is
- ❍ Teacher
- ❍ Resource specialist
- ❍ Principal
- ❍ Vice-principal

Q.2 The school board where I work is
- ❍ English Public
- ❍ English Catholic

Q.3 Years of teaching experience
- ❍ 1 to 4
- ❍ 5 to 10
- ❍ More than 10

Q.4 Current grade level taught
- ❍ Primary (JK - 3)
- ❍ Junior (4 - 6)
- ❍ Intermediate (7 -8)
- ❍ Other (Please describe) _____

Q.5 Gender
- ❍ Male
- ❍ Female
- ❍ Unspecified

Q.6 My age range is
- ❍ 21 to 29
- ❍ 30 to 49
- ❍ 50+

Q.7 I have encountered people with exceptionalities in the following ways (select all that apply)
- o Myself
- o Family member(s)
- o Friend(s)
- o At work/school
- o Not at all
- o Other (Please describe) _____

Appendix F

Attitudes Toward Teaching All Students with Mild to Moderate Disabilities *

Directions: The purpose of this survey is to obtain an accurate and valid appraisal of your perceptions of teaching all students identified with mild to moderate disabilities. Because there are no "right' or "wrong' answers to these items, please respond candidly.

Definition of Full Inclusion: For the purposes of this survey, full inclusion is defined as the integration of students with mild to moderate disabilities into regular classroom for 80% or more of the school day. Under [provincial legislation] mild to moderate disabilities include: learning disabilities; hearing impairments; visual impairments; physical handicaps; attention deficit disorder; speech/language impairments; and mild/moderate emotional disturbance, mental retardation, autism, or traumatic brain injury.

Please select the response that reflects your opinion.

	Agree very strongly (1)	Strongly agree (2)	Agree (3)	Neither agree nor disagree (4)	Disagree (5)	Strongly disagree (6)	Disagree very strongly (7)
1. Most or all separate classrooms that exclusively serve students with mild to moderate disabilities should be eliminated.	❍	❍	❍	❍	❍	❍	❍
2. Students with mild to moderate disabilities should be taught in regular classes with non-disabled students because they will not require too much of the teacher's time.	❍	❍	❍	❍	❍	❍	❍
3. Students with mild to moderate disabilities can be more effectively educated in regular classrooms as opposed to special education classrooms.	❍	❍	❍	❍	❍	❍	❍
4. I would like to be mentored by a teacher who models effective differentiated instruction.	❍	❍	❍	❍	❍	❍	❍
5. I want to emulate teachers who know how to design appropriate academic interventions.	❍	❍	❍	❍	❍	❍	❍
6. I believe including students with mild/moderate disabilities in the regular education classrooms is effective because they can learn the social skills necessary for success.	❍	❍	❍	❍	❍	❍	❍
7. I would like people to think that I can create a welcoming classroom environment for students with mild to moderate disabilities.	❍	❍	❍	❍	❍	❍	❍
8. Students with mild to moderate disabilities can be trusted with responsibilities in the classroom.	❍	❍	❍	❍	❍	❍	❍
9. All students with mild to moderate disabilities should be educated in regular classrooms with non-handicapped peers to the fullest extent possible.	❍	❍	❍	❍	❍	❍	❍

*Attitudes toward Teaching All Students (ATTAS-mm, 2012). Developed by Jess L. Gregory & Lori A. Noto.

Appendix G

Louisiana Validated Practices Initiative: Leader Behaviors

The final set of questions will help us to obtain an accurate and valid appraisal of your perceptions of the value of actions and behaviors of school principals in the inclusion of students with mild to moderate disabilities in regular classrooms. For each item, please rate the behavior as being Not Important, Somewhat Important, or Very Important.

(List of 18 behaviors appears on next page.)

	Not Important (1)	Somewhat Important (2)	Very Important (3)
1. The principal has an unwavering belief in the value of inclusive schooling and considerable knowledge and skills for moving the concept to practice.	❍	❍	❍
2. The principal is a visible and vocal advocate of inclusive practices. S/he communicates unambiguously to staff members the expectation for all school practices to foster inclusion.	❍	❍	❍
3. The principal encourages staff members to take risks to foster inclusive schooling, supporting them even when dilemmas arise.	❍	❍	❍
4. The principal creates a safe, friendly, and welcoming school climate for students and parents/families as well as staff, one based on collaboration and inclusiveness.	❍	❍	❍
5. The principal feels personally responsible for ensuring that all students succeed and goes to extraordinary lengths to reach difficult-to-teach students.	❍	❍	❍
6. The principal finds strategies to celebrate the varied accomplishments of all students.	❍	❍	❍
7. The principal is aware of and accesses a wide array of resources to support teachers and other staff in creating and sustaining inclusive schooling.	❍	❍	❍
8. The principal views change as a constant and nurtures this understanding among staff members.	❍	❍	❍
9. The principal constantly searches for strategies to ensure teachers provide equal access for all students.	❍	❍	❍
10. The principal views special education as a service, not a place.	❍	❍	❍
11. The principal ensures inclusive practices are aligned with school improvement efforts.	❍	❍	❍
12. The principal ensures an expectation of continuous improvement.	❍	❍	❍
13. The principal uses a collaborative approach in creating school schedules that support inclusive practices including: provision of common planning time; effective use of faculty/staff; placement of students within general education environments; provision of student supports and services; and allocation of resources where needed.	❍	❍	❍
14. The principal ensures staff members working with students with disabilities are respectfully invited to offer input on successes, dilemmas, and suggestions for changes.	❍	❍	❍
15. The principal ensures students' IEPs provide the information necessary for designing services and supports.	❍	❍	❍
16. The principal honors and fosters teachers seeking assistance in meeting student needs before the needs become overwhelming, but they recognize when referral for individual assessment is appropriate.	❍	❍	❍
17. The principal is proactive and constructive in facilitating the relationships between staff members and parents/families with the goal of helping students achieve success. S/he facilitates a constructive resolution when disagreements among staff members or staff members and parents/families arise.	❍	❍	❍
18. The principal ensures inclusive schooling efforts are assessed using multiple instruments and approaches, and the assessment addresses academic outcomes, social/emotional/behavioral outcomes, and stakeholder perceptions.	❍	❍	❍

If there is a specific reason why the above behaviors are important to you, please describe briefly.

-

The survey is now complete. Thank you for your participation!

We thank you for your time spent taking this survey.
Your response has been recorded.

Appendix H

Screeplot for Principal Components Analysis of Attitudes Toward Teaching All Students *(ATTAS-mm)* Attitude Measure

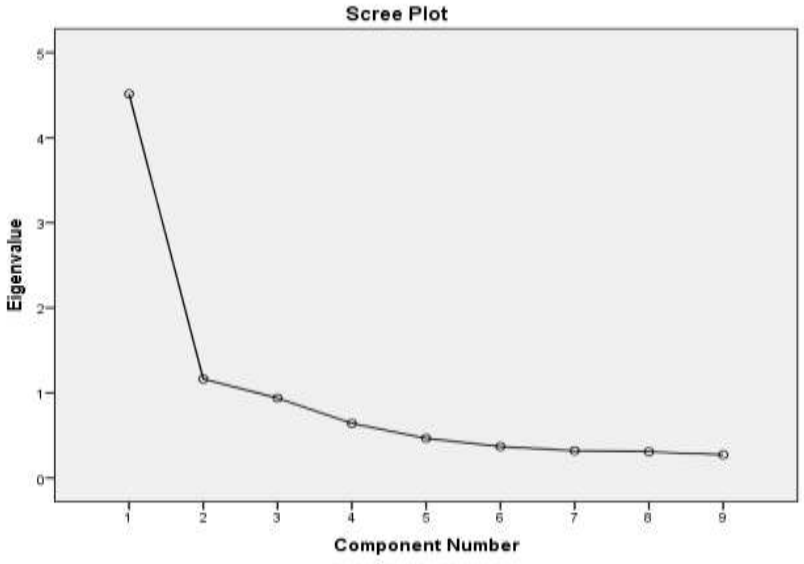

Figure 3. Screeplot, Principal Components Analysis for ATTAS-mm Attitude Measure.

Appendix I

Unrotated Factor (Component) Loadings for Attitude Measure (ATTAS-mm)

Table 4

Unrotated Factor Loadings for ATTAS-mm Attitude Measure

Component Matrix		
ATTAS-mm Item	Component[a]	
	1	2
9. Behavioral	.812	-.143
6. Affective	.785	-.013
3. Cognitive	.777	-.408
8. Behavioral	.746	.268
1. Cognitive	.719	-.388
5. Affective	.711	.457
7. Behavioral	.687	.421
2. Cognitive	.559	-.494
4. Affective	.519	.353

Note: Extraction method: Principal Components Analysis.

[a] 2 components extracted

Appendix J

Screeplot for Principal Components Analysis of Behavior Rating Scale (LVPI)

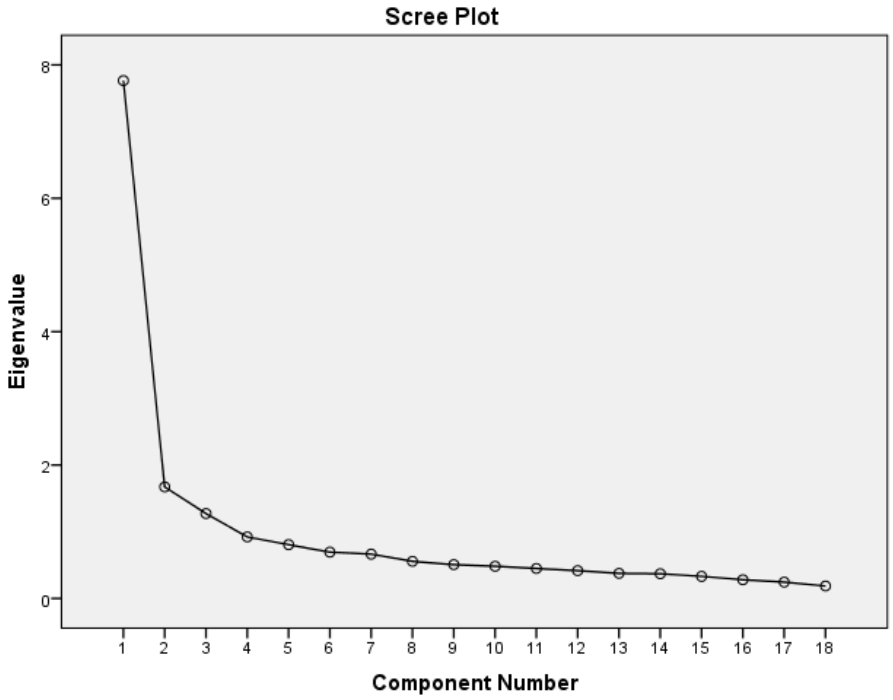

Figure 4. Screeplot, Principal Components Analysis for LVPI Behavior Rating Scale

Appendix K

Unrotated Factor (Component) Loadings for LVPI Behavior Rating Scale

Table 6

Unrotated Factor Loadings for LVPI Behavior Rating Scale

Component Matrix[a]			
	Component		
LVPI Item	1	2	3
17. Collaborating	.759	-.336	.111
18. Collaborating	.754	-.225	-.127
7. Incorporating	.724	-.149	.087
9. Incorporating	.714	-.078	-.302
8. Incorporating	.704	.053	-.187
11. Incorporating	.693	.102	-.375
14. Collaborating	.663	-.350	.409
16. Collaborating	.661	-.271	.411
13. Collaborating	.655	-.171	.240
6. Advocating	.653	-.298	-.154
3. Advocating	.646	.402	.270
12. Incorporating	.625	.158	-.470
4. Advocating	.621	.175	.210
15. Collaborating	.610	-.167	-.010
10. Incorporating	.595	.167	-.318
5. Advocating	.535	-.061	-.157
1. Advocating	.533	.682	.267
2. Advocating	.625	.641	.132

Note: Extraction Method: Principal Component Analysis.

a. 3 components extracted.

Appendix L

Sample and Group Characteristics

Table 8

Sample and Group Characteristics

	Teachers Group		Teachers Group Total		Leaders Group		Leaders Group Total		Grand Total	
	n		*n*	*%*	*n*		*n*	*%*	*n*	*%*
	Teacher	Resource			Principal	Vice				
Totals	377	16	393	*91.8*[a]	24	11	35	*8.2*[a]	428	*100.0*
Board										
Public	351	12	363	*92.4*	19	10	29	*82.9*	392	*91.6*
Catholic	26	4	30	*7.6*	5	1	6	*17.1*	36	*8.4*
Gender										
Male	34	2	36	*9.2*	6	3	9	*25.7*	45	*10.5*
Female	343	14	357	*90.8*	17	8	25	*71.4*	382	*89.3*
Unspecified							1	*2 .9*	1	*.2*
Age (years)										
21 to 29	28	2	30	*7.7*	0	0	0	*0*	30	7.0
30 to 49	266	6	272	*69.2*	11	6	17	*48.6*	289	67.5
50+	81	7	88	*22.4*	13	5	18	*51.4*	106	24.8
Unspecified			3	*.7*					3	.7
Experience (years)										
1-4	47	1	48	*12.2*	0	0	0		48	*11.2*
5-10	83	3	86	*21.9*	1	2	3	*8.6*	89	*20.8*
10+	247	12	259	*65.9*	23	9	32	*91.4*	291	*68.0*
Level										
Primary JK-3	207	1	208	*52.9*	0	3	4	*11.3*	212	*49.5*
Junior 4-6	89	1	90	*22.9*	1	1	2	*5.7*	92	*21.5*
Intermediate 7-8	40	1	41	*10.4*	1	1	2	*5.7*	43	*10.1*
Other	41	13	54	*13.8*	22	4	27	*74.3*	81	*18.9*
Familiarity[b]										
Self	50	1	51	*12.9*	4	3	7	20.0		
Family	223	7	230	*58.5*	16	8	24	68.6		
Friend(s)	215	9	224	*56.9*	15	8	23	65.7		
School	372	16	388	*98.7*	24	11	35	100.0		
Community	11	1	12	*3.0*	3	0	3	8.6		
Not	0	0	0		0	0	0			

Note: [a] Percentage of the entire sample. Other percentages are for column totals within group.

[b] Column percentages do not total 100% due to option of multiple response selection.

Appendix M

Table 12

Chi-Square Table: Importance of Leader Behaviors Rated by Teachers and Leaders

Leader Behavior	Importance Rating by % of each group				X^2
	"Not/ Somewhat"		"Very""		
	Teacher	Leader	Teacher	Leader	X^2
Factor: Advocating for Inclusive Education					
The principal:					
1. Has an unwavering belief in the value of inclusive schooling and considerable knowledge and skills for moving the concept to practice.	26.2	5.9	73.8	94.1	5.89*
2. Is a visible and vocal advocate of inclusive practices. S/he communicates unambiguously to staff members the expectation for all school practices to foster inclusion.	25.1	0	74.9	100.0	9.74**
3. Encourages staff members to take risks to foster inclusive schooling, supporting them even when dilemmas arise.	23.6	3.0	76.4	97.0	6.36**
Factor: Incorporating as a School Improvement Initiative					
9. Constantly searches for strategies to ensure teachers provide equal access for all students.	31.9	20.6	68.1	79.4	1.37
10. Views special education as a service, not a place.	29.3	14.7	70.7	85.3	2.6
11. Ensures inclusive practices are aligned with school improvement efforts.	33.8	12.1	66.2	87.9	5.58*
12. Ensures an expectation of continuous improvement.	28.7	2.9	71.3	97.1	9.35**
Factor: Collaborating					
13. Uses a collaborative approach in creating school schedules that support inclusive practices including: provision of common planning time; effective use of faculty/staff; placement of students within general education environments; provision of student supports and services; and allocation of resources where needed.	24.2	8.8	75.8	91.2	3.36
14. Ensures staff members working with students with disabilities are respectfully invited to offer input on successes, dilemmas, and suggestions for changes.	18.8	5.9	81.2	94.1	2.74
16. Honors and fosters teachers seeking assistance in meeting student needs before the needs become overwhelming, but they recognize when referral for individual assessment is appropriate.	15.6	8.8	84.4	91.2	.660
17. Is proactive and constructive in facilitating the relationships between staff members and parents/families with the goal of helping students achieve success. S/he facilitates a constructive resolution when disagreements among staff members or staff members and parents/families arise.	20.2	11.8	79.8	88.2	.931

Notes: Teachers' group n = 386, Leaders' group n = 34. Total n = 420, df=1.

*p<.05. **p<.01. Cramer's Phi indicates all significant differences are low effect (<.21).

Appendix N

Table 13

Mean Rank of Attitude Scores by Leader Behaviors Rating: All Participants

Leader Behavior	Mean Rank: "Not/ Some what" (n)	"Very" (n)	Z statistic	Effect size *d*
Factor: Advocating for Inclusive Education. The principal:				
1. Has an unwavering belief in the value of inclusive schooling and considerable knowledge and skills for moving the concept to practice.	278.5 (100)	181.9 (310)	-7.09**	.34
2. Is a visible and vocal advocate of inclusive practices. S/he communicates unambiguously to staff members the expectation for all school practices to foster inclusion.	279.7 (96)	182.8 (314)	-7.01**	.33
3. Encourages staff members to take risks to foster inclusive schooling, supporting them even when dilemmas arise.	283.3 (90)	182.2 (318)	-7.18**	.34
Factor: Incorporating as a School Improvement Initiative				
9. Constantly searches for strategies to ensure teachers provide equal access for all students.	246.5 (128)	186.9 (282)	-4.72**	.23
10. Views special education as a service, not a place.	267.4 (116)	181.1 (294)	-6.05**	.30
11. Ensures inclusive practices are aligned with school improvement efforts.	257.9 (132)	177.3 (274)	-6.49**	.32
12. Ensures an expectation of continuous improvement.	267.0 (111)	180.4 (296)	-6.62**	.33
Factor: Collaborating				
13. Uses a collaborative approach in creating school schedules that support inclusive practices including: provision of common planning time; effective use of faculty/staff; placement of students within general education environments; provision of student supports and services; and allocation of resources where needed.	239.9 (95)	193.7 (313)	-3.34**	.17
14. Ensures staff members working with students with disabilities are respectfully invited to offer input on successes, dilemmas, and suggestions for changes.	257.8 (72)	192.4 (335)	-4.28**	.21
16. Honors and fosters teachers seeking assistance in meeting student needs before the needs become overwhelming, but they recognize when referral for individual assessment is appropriate.	255.9 (62)	195.3 (346)	-3.74**	.18
17. Is proactive and constructive in facilitating the relationships between staff members and parents/families with the goal of helping students achieve success. S/he facilitates a constructive resolution when disagreements among staff members or staff members and parents/families arise.	256.0 (80)	189.9 (325)	-4.52**	.22

Notes: Total group n = 410 (cases excluded list-wise). df=1. Higher mean ranking indicates lower attitude levels.

*p<.05. **p<.01. Cohen's effect size (1988) *d<.20* is considered to be small*; d*<.50 is medium effect.

Curriculum Vitae

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