

SUCCESSFUL INCLUSIVE PRACTICE IN CANADIAN SCHOOLS: A REVIEW OF THE
LITERATURE – 2009 TO PRESENT

by

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A CAPSTONE PROJECT SUBMITTED IN PARTIAL FULFILMENT OF
THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS IN EDUCATIONAL STUDIES – SPECIAL EDUCATION

in the

SCHOOL OF GRADUATE STUDIES

We accept this capstone project as conforming to the required standard

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TRINITY WESTERN UNIVERSITY

December, 2016

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ABSTRACT

For many years, students with disabilities in schools across North America have been integrated and educated with their peers in regular classrooms (Winzer, 2006). The ultimate goal of inclusion is that all students, including those who have disabilities, feel fully a part of the life of the classroom and school, academically and socially, leading to as fulfilling a life as possible through the lifespan (Inclusive Education Canada, n.d.). For inclusion to succeed, it must happen at the classroom level in a milieu where a supportive teacher leads all students in creating a community for learning. Although inclusion has become accepted intellectually, many classroom teachers continue to struggle with personal feelings to fully accept students who have disabilities, especially those with significant challenges, perhaps because they do not feel equipped to provide the learning climate necessary to support these students along with the other students in their classrooms (Lupart, 1998). Based upon a review of the literature, a trifold motif: heart, head, and hands, has been developed to represent what has been, to date, understood as effective practice (Pudlas, 2010). The goal of this study was twofold. The first goal was to provide a survey of recent literature to ascertain current practices that have successfully led to inclusionary classrooms in small school or educational system environments within a Canadian context. The second goal was to populate subcomponents of the heart-head-hand motif based on the research that gives support for those being critical factors. As these subcomponents are explicated, this study will provide a practical support for schools.

DEDICATION

As I complete my Master's program, I come back to one person who has walked with me my entire educational journey: my husband, Arlo. From when we had young children at home and he encouraged me to work toward my own educational accomplishments, to when I had to leave home for extended periods to finish my undergraduate degree, to the pursuit of this Master's program, Arlo has been my support. Not only has he been there to give me much needed emotional support, he has smoothed out much on the home front so I could chase my dreams. I dedicate this Knowledge Transfer Project paper to the man I met when I was a teen, the man that God knew would be my helpmate and soulmate. I cannot say it enough: thank you, Arlo, for the gifts you have given me in encouraging my dreams.

ACKNOWLEDGEMENTS

I want to thank Dr. Ken Pudlas for his guidance through this academic journey. His constant circling back to the heart of why we teach not only guided my quest for knowledge and application, but also deeply impacted this research. Dr. Pudlas' constant acknowledgement and affirmation of not only who we are as scholars, but Whose we are as the called continually shifted our focus to a higher purpose for our lives and calling.

I also want to thank my superintendent, Lloyd Robinson, for his support in this journey, and for mentorship and wisdom over many years of working for and with him. He sees the best in his teachers and leaders, and continually encourages us to stretch our gifts. Thank you as well to Dr. Adrienne Castellon for her wisdom in helping put flesh on the bones of this attempt to support classroom teachers. Dr. Dave Carter also receives thanks for his wisdom and encouragement in this journey. To my other colleagues and friends, especially Lisa Clarke, Betty Bayer, and Tracey Jamieson, thank you for the push to strive for excellence in teaching and scholarship.

Thank you to my family: my husband, Arlo; my children, Melanie and Jeff, and now your families, for your support and patience for my years of going to school. Thank you to my parents and siblings and my in-law family who provided hands-on support over many years of my educational quest. As well, thanks go to co-workers who sharpened my saw as we wrestled with the "how-to" of teaching and leading. It surely takes a village, and I have had a large one supporting me.

Finally, I want to acknowledge and give thanks to God for the thirst that He gave me from a young age to learn and grow. Looking back, I see His leading through the journey. The gifts are from Him, and I aspire to use them for His glory.

CHAPTER ONE: INTRODUCTION AND RESEARCH PROBLEM

For over forty years, the education of students who have disabilities has been undergoing a transformation (Winzer, 2006). Education of these students in the early 20th century through the 1950s often occurred in specialized classrooms with specialized teachers, students sorted into their classrooms through a medical model involving doctors and psychologists. The social changes brought about by the civil rights movement in the 1960s and 1970s led to the consensus that students with disabilities should be educated within the “least restrictive environment” (LRE), ideally within the classroom in which they typically would be placed, for as much of the school day as possible (Winzer, 2006). In 1975, that concept led to the creation, within the United States, of the Individuals with Disabilities Education Act (IDEA), subsequently updated in 1994, 1997 and 2004 (Wright & Wright, 2016). Although LRE is a concept rooted in American law, educators around the world have embedded this human right into educational practice (DeLuca, 2013; Sharma, Loreman, & Forlin, 2012; Winzer, 2006; Winzer & Mazurek, 2014).

As educators have, since that time, undertaken to provide the least restrictive environment in schools and classrooms, the reality is not always what had been envisioned. Although students with disabilities are usually placed in a classroom with their age peers, classroom teachers often feel ill-equipped to fully support these students (Lupart, 1998; Shanker, 2010; Shanker & Barker, 2016). Often, the bulk of the education of these students falls to the special education teacher specialist, or even to a paraprofessional support person in the classroom as the classroom teacher teaches to the centre abilities of the classroom (Siegel & Ladyman, 2000; Winzer, 2006). Instead of full inclusion in the academic and social fabric of a classroom, these students often have alternate assignments and are accompanied by adult support

workers that serve to ostracize them socially from their peers. Winzer (2006) alludes to this as she calls inclusion an “elusive dream” (p. 32).

The antidote to this problem, then, is to seek out practices in schools that have been effective in initiating and sustaining an inclusive academic and social environment through classroom teachers. These practices include supports provided by building administrators, system administrators, and educational jurisdictions and would take account of the need to support the head, the heart, and the hands of the classroom teacher (Pudlas, 2010). The purpose of this research, therefore, is to review current Canadian literature in this field to ascertain successful inclusive practice and extrapolate the facets that could be successful in a small educational system, as will be more fully articulated later.

Research Problem

Much has been written over the past thirty years pointing to effective ways to implement inclusionary practice in the classroom. However, even with a plethora of literature available, the results are frequently not evident within classrooms. There are multiple possible reasons for the disconnection between research and classroom practice: teachers mistrust the motives of government and school districts as an excuse to reduce school-level funding, resulting in a perceived lack of resources and support for implementation. Furthermore, professional development for practicing teachers has often been top-down and somewhat ineffective. These challenges, along with a sentiment that educators in district or government positions or in higher education have forgotten the realities of classroom teaching, may have led to the disparity between the research on the positive effects of inclusion and the absence of seeing inclusion fully implemented in classrooms (Butler, Schnellert, & MacNeil, 2015; Waldron & McLeskey, 2010; Winzer & Mazurek, 2011).

Along with the aforementioned issues, another difficulty may be the term “inclusion” itself. This term has been defined in multiple ways. Waitoller and Artiles (2013) explain that the term varies from locale to locale, having become a politically correct term that belies the complexity of the experience of students in classrooms. They define inclusion as the need for schools and teachers to constantly “examine the margins” to ensure that all students are able to access equitable education (p. 322).

The British Columbia Ministry of Education defines inclusion in this way:

Inclusion describes the principle that all students are entitled to equitable access to learning, achievement and the pursuit of excellence in all aspects of their educational programs...and goes beyond placement to include meaningful participation and the promotion of interaction with others. (British Columbia, n.d.)

Others have combined academic and social inclusion in a broader definition. Katz, Porath, Bendu, and Epp (2012) have argued that “academic inclusion...implies that all students are a part of the life of the classroom. This means that they learn in interaction with their peers—not separately or parallel, and not solely through adult...support” (p. 3). They continue: the parallel of academic support is social inclusion whereby “all students have a sense of belonging,...of being a part of a community....a part of the social life of the classroom, and thus have extensive opportunities to interact with their peers” (Katz, Porath, Bendu, & Epp, 2012, p. 3). With the multiplicity of definitions of inclusion, the definition outlined by Inclusive Education Canada is the framework definition of this research.

Definition of Inclusion

As mentioned, the definition of inclusion appears to be evolving, especially within Canadian circles. As used for the purpose of this research, the definition outlined by Inclusive

Education Canada is more broad than that of the British Columbia Ministry of Education but succinctly provides a pan-Canadian definition of inclusion:

Inclusive education means that all students attend and are welcomed by their neighbourhood schools in age-appropriate, regular classes and are supported to learn, contribute and participate in all aspects of the life of the school.

Inclusive education is about how we develop and design our schools, classrooms, programs and activities so that all students learn and participate together. (Inclusive Education Canada, n.d.)

Much of the research on effective inclusionary practice focuses on site-specific case studies, and much research originates in the United States, where, as Waitoller and Artiles (2013) note, the term “inclusion” is interpreted slightly differently than within a Canadian context (British Columbia, n.d.; Hoppey & McLeskey, 2013; McLeskey, Waldron, & Redd, 2014; Scanlan & Tichy, 2014; Theoharis & Causton, 2014; Waitoller & Artiles, 2013). The American view of inclusion tends toward retrofitting traditional educational practice using differentiated instruction, response to intervention and, at times, universal design for learning, practices that are effective components of inclusionary practice (Katz, 2016; Stanford & Reeves, 2009). However, the Canadian view is tending toward a wholesale redesign of curriculum, including initial planning and reporting based upon an updated view of universal design for learning (Joffre & Lattanzio, 2010; Katz, 2012; Sokal & Katz, 2015).

With ever-evolving research, it is a difficult process for teachers, at the classroom level, to sort through and choose instruction and strategies that are practical. British Columbia leads many jurisdictions in supporting students with disabilities in inclusive classrooms, but even within the supports available to teachers in this province, teachers and, to an extent, school teams

often find it difficult to sort through research on effective practice to find local solutions to implementing inclusion (Katz, 2016). School administrators and teachers, like the learners in their classrooms, often need scaffolding and support to become proficient at the needed task. This study seeks to meet that need by combing through recent Canadian research that demonstrates effective inclusionary practice. It also is an endeavor to provide an organizational framework with a focus on supports for teachers' heart, head and hands.

Justifications of the Importance of the Problem

Even more important than the need to discover practical ways to implement inclusion in a classroom is the need for teachers to have a paradigm shift toward understanding that they are the agents for change in their students. Pudlas (2014) asserts that even though more educators intellectually assent to the values of inclusion than in the past, teachers may not have experienced a heart change, an internal paradigm shift, that allows them to create truly inclusive classrooms; he ascribes this to the classroom realities of inclusion being “threatening [to] their professional efficacy” (p. 4). DeLuca (2013) explains the paradigm of “heart” more concisely as an epistemology, a system of thought rooted deeply in beliefs about the nature of people and the nature of learning. Palmer (2003) references this heart change as being pivotal to the success of true education. He asserts that to teach with heart, one must “follow the soul’s calling...[rather than] bend to the forces of deformation around and within us” (p. 377). Vanier (Vanier & Canadian Broadcasting Corporation, 2008) echoes Palmer: “It is the heart that helps us to discover the common humanity that links us all” (p. 87). He continues, “It permits us to accept others just as they are and to believe that they can grow to greater beauty” (Vanier & Canadian Broadcasting Corporation, 2008, p. 88). In pursuit of the heart of teaching, Weisel and Dror (2006) searched for factors that positively influence teachers' attitudes toward inclusion; they

describe the positive impact that professional development has on increasing teachers' receptivity to full inclusion of special needs students in their classrooms. Another significant factor is that a teacher's "sense of efficacy...[both] self-efficacy and teaching efficacy" contribute toward a teacher's affect—the openness and willingness to be the change agent for special needs students in the classroom (Weisel & Dror, 2006, p. 166). If, as Pudlas (2014) asserts, "head and heart and hands must converge in praxis in order to produce inclusive outcomes" (p. 9) then this study is justified inasmuch as it is an attempt to use the vehicle of school-wide and systemic supports to reach the hearts and the hands of classroom teachers who already intellectually assent to inclusion. Patterns found in this literature survey, organised within a visual framework to support ease of understanding, provide a direction for small schools or systems to develop supports for classroom teachers, increasing their motivation, self-efficacy, and capacity for creating inclusive classrooms.

Purpose of this Study

Waitoller and Artiles (2013) provide a meta-analysis of international research published between 2000 and 2009 on professional development for inclusive education. Research revealed no published meta-analysis since that time frame; therefore it is considered timely to review aspects of research on effective inclusionary practice published since 2009.

I have a particular reason for embarking on this research. I acknowledge that this type of study has been done before. Since I have an interest in small, independent school systems, working at an administrative level with responsibilities for inclusive practice, I want to review current Canadian literature in this field. This review is to ascertain successful inclusive practice and extrapolate the facets that could work in a smaller system.

Initially, the plan was to review recent research from small public school districts,

independent schools or systems, or First Nations schools or school systems within Canada to ascertain patterns of support for inclusionary practice in these settings. However, there is a dearth of research available for those specific settings. The methodology of this study has been broadened to review research done in a Canadian context, published between 2009 and the present (2016; as available in the public domain), to look for underlying patterns of support for classroom teachers that have been effective in increasing teachers' positive identity, teachers' self-efficacy and teachers' increased professional capacity toward inclusion and to reframe that research in an organizer by populating a visual organizer with results of that research. By bringing together past and current research, looking for patterns and organizing those patterns in an easily accessible framework of support for teachers' heart, head, and hands, this study may provide a blueprint for support of the classroom teacher and is a contribution to scholarship.

Research Question

Given then the purpose of this study, the research question was: Does research done in the recent past in Canadian schools demonstrate achievable change in inclusionary classroom practice? The survey of currently published research demonstrates that measurable, effective inclusionary change is occurring in Canadian classrooms. Patterns within this research reveal strategies and supports that school administration at the building and system levels can use to support classroom teachers so as to effect change toward inclusionary practice in small schools and systems.

CHAPTER TWO: LITERATURE REVIEW

As has already been alluded to, a critical focus of successful inclusion is an emphasis on supporting the person who is with the students the majority of the school day: the classroom teacher. While classroom teachers are legally, morally, and ethically responsible for the planning and delivery of learning and the assessment of learning for all students, including those with special needs, a wide range of professionals, including administrators, educational assistants, behavioural support workers, and non-educational professionals may be involved in the education of students with special needs. The specific focus of this research is to support classroom teachers in inclusive practice. Therefore, it is reasonable to review specific research for that support. Numerous researchers have identified the need to transform teachers' paradigm toward inclusion, their understanding of inclusion, and their capacity to become inclusive classroom teachers (Loreman, Sharma, & Forlin, 2013; McGhie-Richmond, Irvine, Loreman, Cizman, & Lupart, 2013; Scanlan & Tichy, 2014; Sokal & Katz, 2015; Thompson, Lyons, & Timmons, 2014; Waitoller & Artiles, 2013; Weisel & Dror, 2006; Winzer & Mazurek, 2011). Pudlas (2007, 2010, 2016), distills these concepts into a motif of reaching a teacher's head, heart, and hands. For the purpose of this research, the motif Pudlas outlined has been modified slightly to a motif of heart, head, and hands, based upon the assertion by Scanlan and Tichy (2014) that teacher paradigm is a prime determinant of successful inclusion.

Using the heart-head-hands motif as a representation of this important set of determinants for successful classroom inclusion, the factors relating to each area of a teacher's life are examined (see *Figure 1*). Although there are not precise and neat divisions among each part of the motif, and in fact, there is considerable overlap among some factors, themes in the literature lend themselves to this differentiation.

Educator Paradigm (Heart)

The choice to review teacher paradigm before any other component is based not only upon the assumption that how we think and what we do is based upon who we are: it may be viewed as “attitude” but goes far deeper. The teacher paradigm, or “heart” focus is based upon research that demonstrates the critical importance of teacher paradigm toward students, teacher self-honesty and self-reflection, and teacher ability to be inviting toward students.

Relationship-driven. Teacher paradigm is one of the single most important determinants of successful inclusion, according to a recent study (Scanlan & Tichy, 2014). Jorgensen, Schuh, and Nisbet (2006) assert that if teachers are to become inclusive, the metamorphosis begins at a heart level. Pudlas (2010) defines this heart stance as “a love of teaching and a love of children” (p. 117). In these instances, the authors infer love to mean a deep concern toward the holistic needs of the child and a thirst to discover ways to best meet those needs.

Self-aware and honest. Palmer (2003) points out that this important internal spiritual work is often neglected due to the busyness and fear of vulnerability that surrounds so many. He does not use the word “spiritual” in a religious sense; instead he identifies this spirituality as a “quest for connectedness with something larger than our egos” with this occurring through “autobiographical reflection” (p. 380). Vanier (Vanier & Canadian Broadcasting Corporation, 2008) references a multitude of fears that often drive behaviour. He urges not only an acknowledgement of those fears but an embracing of the solution of being openly vulnerable to others, especially to others that society deems “the ‘outsiders,’ the ‘strangers’” (p. 84). In that vulnerability, Vanier asserts that the relationships with these others allow people to become “fully human” by fathoming not only the gifts others share, but revealing hidden gifts within the self (p. 88). As a teacher becomes vulnerable and self-reflective, a sense of one’s unique gifts are

awakened. An ongoing understanding of these gifts and a sense of calling, purpose, and meaningfulness give teachers a sense of resiliency (Dik, Duffy, & Eldridge, 2009; Dik, Eldridge, Steger, & Duffy, 2012).

Self-reflective. Hall and Simeral (2008) echo the theme that self-reflection is a critical ingredient in growth. Marzano, Boogren, Kanold-McIntyre, and Pickering (2012) embed deliberate reflective practice as the bridge between beginning and master teaching (p. 7). Darling-Hammond (2008) concurs, arguing that ongoing reflection must become ingrained in teaching practice, especially when working with a “much wider range of students for much higher demands of performance” (p. 336). Along with the ability to think reflectively, Hall and Simeral (2008) highlight the primacy of relationships in teachers’ lives: relationships with colleagues and administrators, with parents, but most importantly, with students in their classrooms.

Inviting. Purkey and Strahan (1995) propose that relationships can be best reflected in a family-style model of invitational education, where these interconnections are built through an invitational stance, explained as being personally and professionally inviting with oneself and others, including students, colleagues, and parents. Unpacking the term “inviting,” Purkey and Novak (1996) discuss the intentional stance of teachers viewing students as being valuable, able, and responsible, but also applying those terms to themselves and to their profession. Tomlinson (2015) confirms that the emphasis on invitational education in a family-like classroom learning community is valid and has not lost its effectiveness over the last 20 years of research. For some teachers, however, the ability to be inviting to oneself is compromised, sometimes severely.

Resilient. Purkey and Novak (1996), along with Smith and Dearborn (2016), outline practical ways for teachers to develop resiliency, caring for themselves spiritually, physically,

and emotionally in ways that allow them to care for others. Finally, Weisel and Dror (2006) found that a personal sense of efficacy, the internalized beliefs about one's ability to be able to meet the demands of the profession, plays the single most significant role in teachers' attitudes about inclusion. Pudlas (2010) adroitly expands upon the link between teacher efficacy and the ability to provide heart-felt inclusivity in their classrooms. Therefore, when working with classroom teachers to help them develop attitudes that embrace inclusion, it is imperative to support them in their own courageous, personally reflective journeys; to help them examine their relationships with a view of continually becoming more invitational; and provide experiences and tools to build a sense of self-efficacy (see *Figure 2*). This juxtaposition of one's heart and emotional life with self-efficacy is the bridge between the motifs of heart and the head.

Educator Understandings (Head)

Numerous studies over the past almost twenty years bear witness to teachers' intellectual assent to inclusion being the ideal for educating all students, including those with special needs (Bunch, Lupart, & Brown, 1997; Pudlas, 2010; Weisel & Dror, 2006). Yet these same studies also starkly reveal that for many teachers, self-efficacy is shattered as students who display academic and behavioural challenges enter the classroom. Therefore it is reasonable to review research that points to factors that increase teacher self-efficacy. Teachers must comprehend the moral and legal developments that have led to inclusion as the preferred method for educating all students, the efficacy of inclusion for all students, and be exposed to paradigms that reframe the dominant discourse. Other individual factors, such as one's worldview and lived experience, also become part of a teacher's head knowledge in an understanding of inclusion.

Legal responsibilities. Without recounting the history of inclusion that set the initial tone of this research, it is worth outlining some recent specific historical and legal developments that

have led to inclusion being embedded in the delivery of services to all students, including those with special needs. In the 1970s, Wolf Wolfensberger began a discussion that has had wide-ranging impact upon how people who have disabilities are viewed and how services, including education, are delivered (Cocks, 2001). Wolfensberger's principles, first termed "normalization" and later termed "social role valorisation" (SRV), discussed the principle that all people, including those who typically have been devalued in society, possess the same desires and needs to have quality of life, including the greatest amount of self-determination as possible (Cocks, 2001, p. 12). Wolfensberger's ideas have had the single most profound influence in moving the delivery of services for people with disabilities from segregated to inclusive settings. However, his model is more far-reaching than the physical placement of people in a setting.

Wolfensberger's challenge is for all who have power in society, including educators, to consider underlying mind-sets and assumptions about the undervalued and their contribution to their own lives and society in general (Cocks, 2001).

This challenge has been taken seriously by policy makers. In 1994, Canada, along with 91 other nations, signed the *Salamanca Statement on Principles, Policy and Practice in Special Needs Education and a Framework for Action* (UNESCO, 1994). Canada's signature on this document committed Canadian schools to providing, as far as possible within regular-education inclusive classrooms, education for all children, including those with special education needs. With ratification by Canada of the United Nations *Convention on the Rights of Persons with Disabilities (CRPD)*, Canada has enshrined inclusive education into provincial human rights codes (Joffre & Lattanzio, 2010). Referencing these international frameworks, Towle (2015) outlines recent Canadian case law judgements that have actualized these provisions in the Canadian context. She then summarizes, jurisdiction by jurisdiction, the policies surrounding

Individual Education Plans, transition planning, and funding formulae. Her investigation reveals provincial and territorial models still based on a deficit, medical model rather than a social model that undertakes to ameliorate environmental deficits for students. As a result, there is a patchwork of provincial and territorial supports that, while defining inclusion in policy, still have not fully actualized the goals outlined in international agreements. Therefore, although Canadian schools have a legal obligation to provide, as far as possible, inclusive education for all students, Towle (2015) and others question the efficacy of implementation of inclusionary practice (Katz & Sugden, 2013).

Social justice mindset. Teachers assent to inclusion because they sense that it will have positive social impact for all students. They understand that students with special needs will, along with the rest of their students, live in a non-segregated society (Bunch, Lupart, & Brown, 1997). Grant and Agosto (2008) broaden the social justice continuum by their assertion that reflection on practice should serve to not only improve practice, but should also be employed to aid teachers in becoming agents of social change, whether in their classrooms or with peers. Yet even in fairly recent history, teachers have struggled to understand that the inclusion of students with special needs will not have negative academic implications for their non-identified peers. Jorgensen, Schuh, and Nisbet (2006) maintain that if classrooms are to become inclusive, teachers' "core values and beliefs" must be challenged and transformed (p. 65). Jorgensen (2005) challenges paradigms that assume students have limitations based upon intelligence by asking educators to instead use the framework of "least dangerous assumption" of presuming that each student has gifts that benefit all and is capable of learning (p. 6). Although strides in these limiting mindsets have been made in the last decade, as recently as 2013, Specht answered a series of questions posed by parents and teachers regarding the efficacy of the education of all

students in an inclusive classroom, sharing strategies of inclusionary practice with the primary readers of the article: classroom teachers.

Another imperative for teachers to possess and practice is a core belief in the efficacy of inclusionary methods to reach each student in the classroom. Hanushek, Kain, and Rivkin (2002) completed a longitudinal study to determine the effect of inclusion for students with designations of special needs as well as for students who were not designated. They found, as they had expected, that students with special needs fared better than those who were not supported in regular classrooms. They also found that “special education does not harm and may even help regular-education students” (p. 597). Yet those findings do not consistently ring true. McLeskey and Waldron (2011), leaders in inclusionary practice, reviewed achievement of students with diagnosed learning disabilities in mainstream classrooms and in resource, pull-out classrooms. Their research revealed that although there were some successes, many students in both settings tended toward failing to make gains. They suggested that the failure of growth in the general classroom may be attributed to lack of specialized teacher skills, although they acknowledged a high general ability of those teachers’ practice. Resource classrooms failed to increase performance for different reasons: teachers were skilled but their case loads were too large to be effective. McLeskey and Waldron (2011) reviewed the Canadian model as practiced in Alberta to highlight strategies that are effective: a Response to Intervention model where teachers collaborate, utilizing student data and supportive teaching.

Strength-based outlook. As with a change in the core belief of the efficacy of inclusionary methods, other paradigms have challenged the status quo, continuing to reframe the dominant discourse away from special education segregation and toward inclusion. Beginning with the profound societal impact of SRV, the dialogue has moved in a practical way toward an

emphasis on strength-based education. Two pioneers in this arena, Howard Gardner and Thomas Armstrong, have refocused the conversation from a deficit to a strength-based construct. Gardner broadened the focus of intelligence from a narrow view with its emphasis on linguistic and logical-mathematical abilities to an expanded view that has grown to include, along with the aforementioned intelligences, abilities in musical-rhythmic, visual-spatial, bodily-kinesthetic, interpersonal, intrapersonal, naturalistic, and existential realms (Gardner & Hatch, 1989; Katz, 2012). His theory of multiple intelligences has influenced a generation of educators and researchers including Thomas Armstrong. Armstrong (2012) drew from Harvey Blume and Judy Singer's initial coining of the term "neurodiverse" to outline a practical method to design inclusive education that he termed positive niche construction (pp. 10-12). Positive niche construction is drawn from niche construction theory and its learning corollaries (Armstrong, 2012; Flynn, Laland, Kendal, & Kendal, 2013). Using the components of strength-based learning strategies, assistive technologies, universal design for learning methodology, positive role models, strength awareness, environmental modifications, positive career aspirations, and effective use of human resources, Armstrong painted, in practical terms, a picture of niche construction in providing positive inclusive education that respects and supports each child. Without going into the specifics of positive niche construction that Armstrong outlines, Temple Grandin, champion of autism awareness who is herself on the autism spectrum, agrees with Armstrong that diverse minds are essential for humankind (Grandin, 2010).

Self-efficacy. Linking back to previous discussion about the heart of a teacher, but reframing heart learning and relationship-building in a more intellectual, mind-of-a-teacher context, it has been noted that teachers' beliefs about learning and personality also affect their resiliency. Yeager and Dweck (2012) propose that resilience is based upon a "malleable view" of

both intelligence and personality (p. 303). They suggest that the view a teacher holds, whether of growth or fixed mindset, affects their approach to students. Dweck (2006) explains it simply: teachers who have growth mindsets “love to learn...Fixed-minded teachers often think of themselves as finished products” (p. 201). Yet there is hope. Tomlinson (2015) advances the hope that teacher mindset, thus resiliency, is amenable to change when she states that even if teachers may not yet believe in growth mindset, with evidence, they can “come to believe, that the ability to succeed with rigorous learning resides in all students” (p. 205).

Research has been done on teachers’ social-emotional competence (SEC) and how it affects teachers’ self-efficacy. The Collaborative for Academic, Social, and Emotional Learning (CASEL), upon which later research rests, defines social emotional learning as the ability to “acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions” (Collaborative for Academic, Social, and Emotional Learning, 2015). Jennings and Greenberg (2009) use the CASEL framework to outline the significant effect that teachers’ social and emotional competence (SEC) has upon their self-efficacy. Teachers with low social and emotional competence often feel stressed, have less than optimal classroom management skills, struggle with students who display challenging academic and social behaviours, show signs of burnout, and frequently leave the profession. Teachers with high social and emotional competence are better able to teach their students about social and emotional learning (SEL); have classrooms where children display fewer behavioural concerns; and have healthier relationships with their students. Teachers that have higher social and emotional confidence find that their own self-efficacy and resilience increases. Jennings and Greenberg (2009) indicate that although there is significant theoretical

research to substantiate their views, there are limited, though growing resources specifically designed for teachers to use to build their own social and emotional competence. One promising resource is *InspirED* (Emotional Intelligence Network, n.d.).

The previous factors, although contextual and somewhat based upon individual differences, are embedded in comprehensive research findings that can be generalized to teachers as a group. Two other factors that constitute a teacher's head knowledge are less general in scope but current research reinforces their importance (see *Figure 3*).

World view. The first of these pertains to the worldview a teacher holds. Loreman, Sharma, and Forlin (2013) along with Scanlan and Tichy (2014) describe the important role that worldview plays in teacher self-efficacy. Loreman et al. (2013), in an international study of self-efficacy of teacher candidates, discuss the roles that worldview and culture play in teacher attitudes toward inclusion as they compare Eastern and Western views of inclusion and self-efficacy. Scanlan and Tichy (2014) discuss the role of mission-mindedness as a positive factor in building teacher self-efficacy in the Catholic school system.

Lived experience. Loreman, Sharma, and Forlin (2013) noted one other important factor. Not surprisingly, teachers who have had previous exposure to people who have disabilities were significantly more likely to have positive attitudes toward inclusionary practice. Pudlas (2010) examines the positive effect that experiential professional development can have upon teacher attitudes. Through exposure to "simulations, biographies, and videos," pre-service teachers displayed increase acceptance of inclusion within the classroom (p. 125). That lived experience can also be accomplished as teachers observe and learn from other teachers outside their own milieu (Grant & Agosto, 2008). As teachers' hands are strengthened, in part, by effective professional development, their hearts and their heads may be more likely to become more

inclusive.

Educator Professional Development (Hands)

Up to this point, this review of literature has focused upon the internal work: the heart of a teacher and the head knowledge that helps teachers not simply assent to but embrace inclusion. Both foci are crucial, but practical support is also required to support teachers in their journeys. Therefore, it is reasonable to review specific research to help teachers improve their practice. This study includes a brief look at three components of professional development: basic tools in a planning and strategy toolbox for inclusive teachers; the role of collaboration in inclusive classrooms; and ways to frame effective professional development. Finally, although we have focused primarily on the teacher and the classroom, it is crucial that we take a brief look at the supports teachers require from their principals and system administration.

When teachers enter the classroom for the first time, they come with a figurative toolbox but a limited amount of tools. As with any professional, new experiences and challenges require a search for new tools. The same holds true when a teacher embarks on a quest to become more inclusive. Research has given educators many tools that support students in inclusive classrooms, some more specific, and others more general. The ones described briefly in this review are general tools that research has shown have significant effect on helping teachers built inclusive classrooms, but the list is by far not exhaustive. As with any professional, when the time comes to find a specific resource for a specific student, teachers must continue the search.

Tools for the Classroom Environment

The classroom environment is a crucial part of the success of inclusion. Purkey and Novak, in their seminal work, *Inviting School Success* (1996), provide practical resources in this area. Their invitation to teachers to become invitational helps create healthy family environments

within classrooms. Many other books written on creating inclusive schools have chapters specifically devoted to creating inclusive classroom environments (Brownlie & King, 2011; Katz, 2012; McLeskey & Waldron, 2000).

Tools for planning and delivery of behavioural support. Along with tools for creating caring and inviting classrooms, teachers require tools to support students who display emotional and behavioural challenges, as these challenges often shatter a sense of self-efficacy (Bunch, Lupart, & Brown, 1997; Pudlas, 2010; Weisel & Dror, 2006). Armstrong (2012) helps teachers reframe what some consider as challenging behaviour: for example, the energy and, at times lack of focus of a child with a diagnosis of ADHD. Through the reframing process, Armstrong directs teachers to look at the significant strengths embedded within the perceived challenging behaviour and provide reasonable accommodations and supports that enhance strengths and minimize incompatibility with a classroom environment. Shanker and Barker (2016) explain that often what is interpreted by teachers as inappropriate emotional or behavioural action is, in reality, a physiological reaction to stress. They outline the concept of the “interbrain” as a complex interplay between the emotions and emotional responses between a child and a caring adult that assists the child to self-regulate emotions and behaviour (Shanker & Barker, 2016, Arousal Cycle, paragraph 2). Greene outlines a collaborative problem solving process that opens authentic, two-way conversations between a teacher and student, with a focus on listening and explicitly teaching lagging skills (Greene, 2008; Greene, 2011; Greene et al., 2004). Searle (2013) expands upon the lagging executive skills in behavioural and academic areas. She utilizes a problem-solving approach to help teachers tease out specific lagging skills and provides a framework to help teachers individualize supports and solutions for their students.

Frameworks for planning, delivery, and assessment of instruction. Each framework below is defined and briefly explained. Many of the descriptions and explanations are referenced from the websites developed by the framework authors. These websites, rather than scholarly research, are referenced here for two reasons. First, readers unfamiliar with the frameworks may find the websites more reader-friendly. Second, the scholarly research upon which the framework is built is typically embedded within the website.

Response to Intervention. The framework of Response to Intervention (RTI) is a three-tiered support system for students with differing academic and behavioural needs within a classroom (National Center for Learning Disabilities, 2016). The basis of all support is the classroom, termed Tier 1 in this framework. Within the classroom, there are two expectations. First, there is an expectation of excellence in teaching for all students. Second, a process is in place to assess all students to determine those who may need more intensive intervention. At the Tier 2 level, focused interventions occur for groups of students as necessary. At the Tier 3 level, individualized or very small group instruction occurs, again, only as required. All interventions are monitored and students receive more or less intervention as needed. RTI was initially conceived to support academic learning, especially in literacy, but it has grown to include behavioural supports as well (PBIS World, 2016; U.S. Department of Education Office of Special Education Programs, 2016). The basis for RTI rests upon excellence in teaching in the classroom, but for successful implementation, other school support personnel must assist the classroom teacher through all tiers.

Understanding by Design. Excellence in classroom teaching must begin, not with a teachers' manual and not even with a prescribed or mandated government curriculum. It must begin by design and planning based upon mediating the prescribed curriculum, and using

available resources, to reach the specific students in a teacher's classroom. Although Understanding by Design (UbD), a framework developed by McTighe and Wiggins (2012) is not designed specifically for inclusive education, its tenets are practical in classroom planning and they undergird the other frameworks that are more specifically focused on inclusive education. The curriculum planning frame McTighe and Wiggins term backward design has three parts based on yearly and unit planning. In Stage 1, teachers determine the long-term, often yearly goals their students will learn based on the prescribed curriculum. Teachers also determine how students will transfer that knowledge to meaningful situations. In Stage 2, teachers choose the evidence, or assessable products that will demonstrate student knowledge. The evidence must show that students can explain, interpret, and apply knowledge, while demonstrating perspective, empathy, and self-knowledge. Finally, in Stage 3, teachers plan, usually through unit plans, how students will meet the goals that the teacher has determined to be critical to learning.

Differentiated Instruction. The framework of Differentiated Instruction (DI), developed by Carol Ann Tomlinson, has been built upon previous research and has also itself been incorporated into other frameworks as understanding of the practicality of DI spreads (Differentiation Central, 2016). Differentiation is based upon the following principles: asking students to complete respectful tasks; using quality curriculum; teaching up, by teaching just past a student's comfort level; flexible grouping of students at a point in time according to need; continual assessment and reflection of that assessment back to students; and building community. Teachers use the levers of the following components of teaching: content, process, product, affect (student interest) and the learning environment to plan and create instruction in response to student abilities and learning styles (Tomlinson, 2010). Tomlinson has written prolifically, offering practical strategies for differentiating instruction.

Universal Design for Learning. Universal Design for Learning (UDL) grew out of the architectural universal design movement where environments were designed specifically to provide accessibility supports for people with disabilities but were of benefit to a much wider range of people. Examples of architectural universal design are sidewalk curbs that curve down to street level, ramps as well as stairs going into public buildings, and automatically-opening doors in stores (RL Mace Universal Design Institute, 2016). These architectural designs are used by almost everyone at some point, but they are essential for people in wheel chairs to have independent access to buildings.

David Rose and Anne Myer took this view of architectural design and used it to develop a framework for educational design they termed Universal Design for Learning (UDL) (National Center on Universal Design for Learning, 2012). Their research led to three principles that help teachers plan lessons that all students can access. The three principles are:

Principle I: Provide Multiple Means of Representation

Principle II: Provide Multiple Means of Action and Expression

Principle III: Provide Multiple Means of Engagement (CAST, 2011, p. 5).

Each principle is further delineated through guidelines. Within the principle of “multiple means of representation” are guidelines and practical strategies for teachers to use for alternative or supportive ways of presenting perceptual information, language, expression and symbols, and supports to aid comprehension. Within the principle of “multiple means of action and expression” are guidelines and practical strategies for teachers to use for alternative or supportive ways of students to use physical action to demonstrate understanding, to have access to multiple options for communicating understanding, and effective support for student executive function. Finally, within the principle of “multiple means of engagement” are guidelines and practical

strategies for teachers to use for alternative or supportive ways of inviting, maintaining, and sustaining student interest, emotional safety, collaboration, communication, coping skills, and self-reflection. The Center for Applied Special Technology (CAST) continues to spearhead research into how technological advances can help transform traditional learning into accessible learning for everyone (CAST, 2015).

Within Canada, UDL practice and research has taken a slight twist. Jennifer Katz has operationalized UDL and added a defined social-emotional component, through the Three-Block Model of Universal Design for Learning (Katz, 2012). As well, Special Education Technology-BC (SET-BC) has developed a series of web-based lessons for teachers to learn and implement UDL strategies in their classrooms (British Columbia Ministry of Education, 2016b).

Assessment. Each of the previously described frameworks requires teachers to look at assessment as an ongoing process. Rather than solely being justification for report card grades, assessment is an integral part of understanding and pinpointing student strengths and challenges as well as a guide to shape future lessons and strategies. This view of assessment is defined in three strands. Assessment for learning is data-gathering based upon observation of students to help teachers with their own teaching and give appropriate feedback to their students.

Assessment as learning occurs when students are able to use self-assessment along with the feedback given from teachers to grow. Finally, assessment of learning helps teachers document whether students have met learning goals (Board of Studies NSW, 2012).

Although these frameworks have demonstrated effectiveness for inclusive education, teachers must know more than the theory outlined in each framework. For teacher self-efficacy, there must be support from others in their journey.

Collaborative Practices

As long ago as 1997, Kruger demonstrated that social support of teachers by colleagues through mutual trust and respect, including “reassurance of worth,” increased the ability of those teachers to effectively plan and support students who display behavioural challenges (p. 167). Weisel and Dror (2006) note that when teachers work in schools that value and promote cooperation and autonomy, that type of supportive school culture, along with training in working with students who have special needs, increases teachers’ sense of self-efficacy. Jorgensen, McSheehan, and Sonnenmeier (2007) explain that teachers’ perceptions of their students increased positively as their self-efficacy increased. However, Jorgensen, McSheehan, and Sonnenmeier (2007) and Scanlan and Tichy (2014) note that an increase in teacher self-efficacy was mediated by collaboration with other educators, especially those with more experience working with students who have disabilities. McLeskey and Waldron (2000), in their treatise *Inclusive Schools in Action*, emphasize the immense importance of classroom teachers, specialist teachers, and administrators planning and working collaboratively, with open and frank discussion, to bring about inclusive education. Pudlas (2010) discusses the ability of cost-effective Educator Assistance Teams (EATs) to “be a foundational basis for empowerment and control, educator initiative, teacher initiated actions, professionalism, and accountability” (p. 126).

Effective Professional Development

Pudlas (2010) also links effective professional development to improved teacher efficacy. Therefore, it is reasonable to review specific research for the types of professional development most effective in increasing positive classroom praxis.

McLesky and Waldron (2000), Waldron and McLesky (2010), and Harpell and Andrews

(2010) posit that traditional professional development is relatively ineffective for lasting classroom change. Instead they suggest that collaborative professional development has far better results. Their assertion is echoed by Jorgensen, McSheehan, and Sonnenmeier (2007). Waitoller and Artiles (2013), in their metasynthesis of literature for professional development for inclusion, recommend that effective professional development includes action research, where teams of teachers are empowered to critically brainstorm, plan, and experiment with methods within their own classrooms. They suggest several components of successful professional development. First, there should be an emphasis on relationships with students and their families. Secondly, professional development should place emphasis on “critical multiculturalism” (CM) where the dominant discourse of disability is supplanted by an understanding of the value of each student (p. 340). Finally, they suggest that universal design for learning (UDL) is an effective vehicle, in conjunction with CM, to effect change. Hoppey and McLeskey (2013) suggest that partnerships with universities for action research can also prove beneficial.

Finally, McLeskey, Waldron, and Redd (2014) describe a school where inclusion has been effectively implemented. All students are supported by high instructional quality, taught by teachers who are “warm demanders” (p. 63). Professional development is teacher led, in-house, thus growing leaders from the inside. The principal allows teachers the freedom to teach as they desire, but all teachers are held to high expectations for each individual student. Limited resources are used effectively: the school schedule is tight, but this allows for co-teaching and push-in services by special educators and para-professionals. All educational decisions are data-driven; the school collaboratively developed their own data based on classroom-based achievements.

School-wide Collaboration and Systemic Support

Support for teachers' hearts, heads, and hands does not occur in a vacuum. As in the previous case study, effective inclusive education occurs in a setting that is supported by the entire school. Research by Scanlan and Tichy (2014) noted that self-efficacy improved and teacher attitude became more positive toward inclusion when, instead of a classroom resource model being implemented, a consultancy model was employed, whereby teachers could consult with a learning coach to brainstorm ideas. That type of support moves beyond the classroom and of necessity, must be set within the larger framework of a school or of a school system (see *Figure 4*).

Review of extant literature reveals that certain components of school and system supports have common threads. Harpell and Andrews (2010), in their review of the literature on effective school-level change, have noted that differentiated instruction (DI) and co-teaching are effective ways to meet the needs of all students. The assumptions that underlie DI and its successful implementation rest on a base of active planning. Active planning, though, is a complex and time-consuming construct, and many teachers feel overwhelmed with the process. Co-teaching, with special educators working together with classroom teachers, is effective in ameliorating the angst of classroom teachers and supporting all students. Harpell and Andrews recognize lack of preparedness as a significant factor in unfavourable teacher attitudes toward inclusion. To resolve that concern, their research suggests that rather than a systemic top-down empowerment, if teachers feel psychological empowerment based upon intrinsic rather than external motivation, they will be more likely to internalize an inclusive paradigm. Their research suggests that this type of empowerment is best developed through self-managed teams, especially those convened to work together on professional development. School administrators must provide time for

collaboration, resources for professional learning communities, and the opportunity for those learning communities to practice and learn together. Theoharis and Causton (2014) mirror many of the ideas espoused by Harpell and Andrews.

Waldron and McLeskey (2010) begin their literature review by reviewing difficulties in implementation and teacher buy-in for inclusion. Their premise is that a collaborative culture resulting in “re-culturing” a school holds promise to strengthen positive change (p. 59). That reculturing occurs as teams of administrators and teachers examine student achievement and behavioural data, scrutinize school capacity, develop a plan for change, develop plans for professional development, including plans for co-teaching, differentiated instruction, and evidence-based reading, and monitoring and tweaking changes with an emphasis on high-quality professional development. Waldron and McLeskey (2010) assert that traditional professional development, typically in a stand-and-deliver model to groups of teachers, does not work. “Knowledge...produced by researchers from outside of schools... [where] teachers are consumers...;[in] a linear process with information moving from an outside expert to a teacher to the teacher’s classroom;...with little or no change in how...practices are implemented” does not effect change (p. 63). Instead, they suggest that collaborative professional development yields far superior results. They recognize drawbacks of collaborative professional development: its slower pace; higher expense, especially in terms of finding collaborative time; necessity for teachers to move out of classroom silos; and lack of support and understanding on the part of many principals. However, they suggest that principals can provide remedies to these drawbacks if they distribute leadership and model collaboration. Waldron and McLeskey (2010) suggest that it is also best to move slowly, with targeted priorities, looking for a deeper understanding and change rather than a faster, but more surface-level change. Finally, they echo others in the

premise that for inclusion to be fully realized, principals must lead in finding time and resources for school teams to collaborate.

It is also important to address a concern that was expressed in at least one study, the valid concern about how these supports can be financed. Scanlan and Tichy (2014) suggest that administrators who think outside the box for funding for initial programs, whose schools obtain positive outcomes for their students, have the possibility of “increased capacity to provide inclusive service delivery yielding increased access to resources” (p. 154).

Edmunds, Macmillan, Specht, Nowicki, and Edmunds (2010) reiterate that change does not occur immediately. They point out that “a) change is a process; b) change is made by individuals who, in turn, change institutions; and, c) as innovation occurs, considerable personal attention is paid to those who enact innovation” (p. 143). They completed a study of nine Canadian schools, asking principals to review the following school-level criteria that have been identified as essential components of inclusive schools: “1) physical resources; 2) philosophy, policies, and mandates; 3) school environment; 4) school personnel; 5) delivery of special education; and 6) classroom teaching practices” (p. 144). The principals in the study reflected confidence in their philosophy, policies, and mandates, as those had been developed by their provincial government and district. They indicated positive results in the areas of delivery of special education and classroom teaching practices, although they appeared to have minimal specific working knowledge of either area. These principals expressed significant concerns in the following areas: inclusive practice, professional development, attitudes among staff, and school environment. Edmunds et al. made recommendations for the school level that reflect the heart-head-hand emphasis within this research: the need to change attitudes and beliefs of teachers, staff, and students toward students who have special needs; the urgency to recalibrate school

climate and culture to build and maintain the ethos of school family; and the obligation to provide practical professional development allowing the staff to practice what they had learned in the classroom.

The foregoing has been an overview of recent literature on the factors of successful inclusion as explained by a “heart-head-hand” motif: that of teachers’ paradigm toward inclusion, their understanding of inclusion, and their capacity to become inclusive classroom teachers. The next chapter details the methodology used to search the same topic from the Canadian research literature base from January, 2009 to the end of September, 2016.

CHAPTER THREE: METHODS

The literature review revealed common threads required in school-level and systemic support of classroom teachers moving toward inclusionary practice. Although it is extensive, it was completed and a nascent visual framework of the heart-head-hand model was populated without formal search parameters. The research question was addressed utilizing a qualitative approach, in the manner of Harpell and Andrews (2010), in which they review extant literature to frame a narrative. The methodology, discussed more fully below, was more rigorous than that of Harpell and Andrews as the collection and organization of data was modeled after Waitoller and Artiles (2013).

A meta-synthesis method was used, providing a description of current Canadian research into underlying patterns of support for classroom teachers that have been effective in increasing teachers' positive identity, teachers' self-efficacy and teachers' increased professional capacity toward inclusion (Barker, 2013). The research articles that fell within search parameters were organized, first into a spreadsheet to ascertain the themes within each article, into a conceptual framework using the heart-head-hand motif already described, comparing and contrasting the Canadian research with the extant literature review already completed. My intent with this vein of research was twofold: to provide an updated qualitative review of research on effective inclusionary practice within Canada, and to provide a practical organizational framework that schools and systems can use to focus support for classroom teachers.

Research Design

As the literature within the search parameters was reviewed, it was collected on a spreadsheet organizational framework. This framework included a précis for each study, details about the type of study, the results, whether the study pertained to the heart, head, or hands of a

classroom teacher or if the research pertained more to systemic support. The literature was also reviewed to ascertain if it added to or refuted the extant literature: in fact, the literature added to and expanded upon the extant literature. It was important for scholarship to review all the literature within specific parameters, as this provided protection against bias. A narrative approach was used to explain the research results.

Qualitative Method

Qualitative research, as defined by Mertens (2015), is a method of research based in constructivism, a paradigm that undertakes to make sense of multiple views rather than focus on one specific view. Since the intention of this study was to gather information to support classroom teachers, qualitative research, or the research of gathering varied data and observing larger patterns within that research, appeared the most practical vehicle. As well, many of the studies in this area of research are themselves qualitative; the continued explication of the aggregate of those studies is set well within the paradigm of qualitative research.

The use of a qualitative method approach allowed the collection of meaningful data and a deep understanding of those data. The qualitative research involved a search for patterns that are effective in developing inclusive schools and classrooms. The research, even that done within the time period outlined, showed growth and refinement of inclusionary practice. Using that research, themes were inferred that support the heart, head, and hands of classroom teachers.

A visual organizer was used to sort and organize the themes and patterns revealed within the literature. Since this research is also to have practical application in helping small schools or systems develop their own goals and paths toward inclusion, the visual organizer not only serves as an organizer, but can also serve as a map toward the goal of inclusion.

Participants

The literature included quantitative research, qualitative research, including case studies, and meta-syntheses. The nature of participants, and their demographics and roles in the educational system, as described in the quantitative and qualitative research, including case studies, was noted in the research spreadsheet. When reviewing meta-syntheses, the nature of participants was noted only if participant data were readily available within the study. Although the spreadsheet is not included in this paper, Appendix B gives detail as to where it is available for view.

Data Collection

The following search engines were used: Google Scholar Search, Academic Search Complete (utilizing EBSCO, including ERIC), JSTOR, and Sage Education Collection. The search began using the following descriptive terms and key words: using the connector *and*, the search term *inclus**, combined with *self-efficacy*, *teacher efficacy*, *teacher attitude*, *teacher capacity*, and *effective practice*. In consultation with the research committee, since the search terms cast a very wide net, the search was further limited to English language results and as necessary by the terms: *not* in conjunction with the terms *health*, *nurs**, *social*. In the case of the Sage Education Collection, since the number of articles was so large, the terms *preservice* and *pre service* also served as limiters. To ensure as many Canadian studies as possible were found, a secondary search was done, utilizing the following descriptive terms and key words: using the connector *and*, the search term *inclus**, combined with *education*, *Canad**, *self-efficacy*, *teacher efficacy*, *teacher attitude*, *teacher capacity*, and *effective practice*. The articles were examined using the following selection criteria:

1. The research addresses teachers' attitudes, efficacy, practice, ongoing learning, or

school or systemic resources used to support those teachers practicing in a K-12 environment.

2. The research occurred at least partially within Canadian educational schools or systems or was conducted by faculty resident in a Canadian university.
3. Since this research field is limited in geography and the results of this study are intended to provide practical supports for schools, the source of the publications included peer-reviewed articles, articles published in book chapters and papers presented at conferences.
 - a. All peer-reviewed articles available to me were included in the selection criteria.
 - b. Articles published in book chapters and papers presented at conferences were selectively chosen if they were authored by researchers who have published in peer reviewed articles referred to above.
4. The studies were completed or published in 2009 or more recently, as a previous extensive survey of literature reviewed literature in inclusive education and teacher preparation through 2009 (Waitoller & Artiles, 2013).

Instruments

There were no questionnaires or other instruments used in this study.

CHAPTER FOUR: RESULTS

Selection Process

A total of 4,466 titles were found through the two search processes: 4,227 through the first search, and 239 through the second. Both searches were screened in the same manner. An initial visual screening of article titles was done and if the title appeared to be within the search parameters, the abstract was reviewed. After the abstracts were reviewed, if the article appeared to have relevance to the topic of teacher efficacy, it was downloaded, either onto a OneNote search organizer as a research article, or onto a separate OneNote search organizer for future, non-search-parameter review. Through this process, 135 journal articles were downloaded: 38 for the current research, and 97 for future review. One of the 38 articles was eliminated, as it was written totally in French, and while it may have had import, the researcher, in consultation with the Research Committee, deemed that the cost of translation outweighed the potential benefit of any potential contribution. As a final check on the articles selected for the current research, an electronic search was done within each article for the term *Canad** to ensure that the article was, indeed, Canadian in nature.

During the initial review, articles that had no relevance to education, for example, those referring to nursing, social work, and law enforcement, were eliminated. Articles that referred to pre-school, university, or adult education were also eliminated, as the focus of this research is on teachers in the K-12 system. Although the Sage Education search parameters did not include pre-service teachers, articles from Google Scholar, Academic Search Complete, and JSTOR that discussed pre-service teachers were retained in the research OneNote organizer.

Each of the 37 remaining articles downloaded for the research review was skimmed to ascertain its relevance to the research. One article was eliminated at this juncture, as it was not

applicable to the research. One other article, Hui, Snider, & Couture (2016), discussing the work of occupational therapists with classroom teachers, was queried at this point due to its medical slant, but was retained because of its applicability to this research. A spreadsheet was developed to categorize and sort the remaining 36 articles. Each article was then read carefully, annotated, and entered into the spreadsheet. Key words were noted; a précis was written to summarize the research findings; a one-sentence summary was written; the university affiliation, and the type of research paradigm in each article was noted. Each article was coded according to its attribute in the heart-head-hand motif (see Table 1). Through this process, another four articles were eliminated due to their surface-level relevance to teacher efficacy, leaving 32 articles in the research pool. Each of these articles was coded as to its relevance in the nascent heart-head-hands visual organizer. A copy of the full spreadsheet is available from Trinity Western University (see Appendix B).

A second review of the précis yielded a secondary coding of the themes found within the literature, independent of the heart-head-hands visual organizer (see Table 2). Through this secondary coding process, another four articles were eliminated, even though each had relevance to teacher efficacy. The reason these articles were culled was because they did not fit within the secondary search parameters: they were not primary research articles and although the authors were well known and their writing was relevant, these authors had not published primary research within the parameters of this investigation. An independent visual map, created in Webspiration, was used to organize the themes to allow comparison with the topics in the heart-head-hands visual organizer.

The remaining 28 articles were sorted into the Webspiration visual organizer according to the independent theme coding. Since eight articles focused on pre-service teachers, a number of

topics were specific for pre-service teacher education, and two of these were eliminated due to their sole focus on pre-service teacher education. Since the focus of this research is to support in-service teachers, only the information that can be extrapolated from those articles to support in-service teachers was noted. This left 26 articles as the focus of this research. See Table A1 for a list of each of these articles, the type of study, coding themes and the specific codes in both the initial and final visual organizers.

Resultant Themes

Twenty-six articles (Archambault, Kurdi, Olivier, & Goulet, 2016; Covell, McNeil, & Howe, 2009; DeLuca, 2013; Duenkel & Pratt, 2013; Hui, Snider, & Couture, 2016; Jordan, Glenn, & McGhie-Richmond, 2009; Jordan, Schwartz, & McGhie-Richmond, 2009; Katz, 2013; Katz, 2014; Katz & Sugden, 2013; Klinger, Volante, & DeLuca, 2012; Leblanc, Richardson, & Burns, 2009; Leithwood & Sun, 2012; Lewthwaite & McMillan, 2010; Loreman, Sharma, & Forlin, 2013; McIntosh et al., 2011; Montgomery & Mirenda, 2014; Richert, 2016; Rideout & Koot, 2009; Robertson-Grewal, 2010; Sharma & Sokal, 2015; Sharma, Loreman, & Forlin, 2012; Sokal & Sharma, 2014; Sokal, Woloshyn, & Funk-Unrau, 2013; Specht et al., 2016; and Van Hecke, 2016) were examined for themes. Within these articles, the following themes relevant to improvement in efficacy for inclusion for in-service teachers were noted: 1) teacher identity and epistemology (11 studies); 2) teacher attitudes (12 studies); 3) professional development (11 studies); 4) school culture and ethos (two studies); 5) school leadership (seven studies); and 6) effective inclusive teaching practices and frameworks (seven studies). As well, two other related themes were evident: 7) general factors that challenge the ability to provide inclusive education (three studies); and 8) supports needed at the system or district level (one study).

Teacher identity and epistemology. As was previously discussed in chapter 2, teaching is a labour of the heart. To implement inclusion, the condition of a teacher's heart is a critical factor. Teachers have an epistemology, a system of thought rooted deeply in their beliefs about the nature of people and the nature of learning (DeLuca, 2013). In his framework on belief systems within inclusive education, DeLuca suggests that belief systems about teaching exist on a continuum from an in-group/out-group way of thinking to a social justice paradigm, with current inclusive practice falling between what he terms "integrative" (teacher moves from centre to the side) and "dialogical" (student active participation is highly honoured) (p. 326). These belief systems are shaped by many factors, not the least of which is previous meaningful interactions with people who have disabilities (Loreman, Sharma, & Forlin, 2013; Sharma & Sokal, 2015; Specht et al., 2016). Specht et al. (2016) explain that not only do teachers hold beliefs on the nature of teaching, ranging, as DeLuca (2013) points out, from teacher-centred to student-centred, but indeed, on the nature of learning itself. Teachers' beliefs on the nature of learning range from the belief that students have a fixed ability (based upon factors such as a disability) to the belief that learning is malleable and plastic, for all students (Specht et al., 2016). Based upon this belief structure, teachers range on a continuum of whether the student is responsible for his or her own learning (I taught it; he can't learn because he...) or whether the teacher is responsible for the learning (She doesn't understand; what must I do to help scaffold...) (Jordan, Schwartz, & McGhie-Richmond, 2009; Lewthwaite & McMillan, 2010). As Specht et al. (2016) demonstrate, teachers who believe in the malleability of student learning tend to be more student-centred in their teaching, and have higher efficacy in their teaching as a result. Jordan, Glenn, and McGhie-Richmond (2009) reiterate that teacher beliefs drive teaching behaviour, but as has already been noted, not all teachers believe they are capable of teaching all

students. As the adage goes, a man (or teacher) convinced against his will is of the same opinion still. If we are to influence teacher efficacy in inclusive classrooms, we must find ways to influence teacher belief systems.

As has already been noted, an important factor in this continuum of belief is existing relationships with people who have disabilities (Loreman, Sharma, & Forlin, 2013; Sharma & Sokal, 2015; Specht et al., 2016). Teachers who have relationships with people who have disabilities or who have had challenges themselves tend to look beyond the surface of the learner to see a whole child. Richert (2016) suggests that currently held attitudes about the nature of education itself, including pedagogy and curriculum, must be assessed critically, and teachers must "develop an inclusive mindset where meeting the needs of all children is a focus of their profession" (p. 20). Duenkel and Pratt (2013) echo this sentiment when they recommend that previously held ideas must be deconstructed and rebuilt. Jordan, Schwartz, and McGhie-Richmond (2009) and Robertson-Grewal (2010) suggest that beliefs not only must be reflected upon, but that collaboration with supportive colleagues is crucial, as beliefs are challenged and reframed in a knowledge creation process. Rideout and Koot (2009) put practical suggestions in place for transformation of belief systems: create cognitive dissonance by integrating practical and book knowledge, written reflections, and wrap-around collaboration. Katz (2014) concurs, in her documentation that success with inclusionary teaching drives change in teachers.

Teacher attitudes. Teacher attitudes are similar to beliefs; in some ways they are almost indistinguishable from one another. In this section, teacher attitudes are assumed to be based, not upon deeply held beliefs, but instead, upon external factors and how teachers relate to those factors. However, there is considerable overlap between beliefs, attitudes, and concerns.

Many of the research findings are based upon teacher efficacy assessments that

extrapolate and measure teacher beliefs, attitudes, concerns, and teaching efficacy. Before reviewing research findings around teacher attitudes, it will be helpful to examine some of these measurement instruments. Of the 26 articles, 15 utilized some type of survey or assessment measure. Three of these were self-developed surveys, but the rest used standardized assessments. Sharma, Loreman, and Forlin (2012) discuss the development of their assessment tool, the *Teacher Efficacy for Inclusive Practices* (TEIP) scale, utilized in seven of these studies. The TEIP was predicated on teacher efficacy rather than student disability. This scale measures not only the composite score for Teacher Efficacy, but independent factor scores measure "teacher efficacy with inclusive instruction (Factor 1); with collaboration (Factor 2); and with managing disruptive behaviours (Factor 3)" (Sharma, Loreman, & Forlin, 2012, p. 16). The most frequently used scales along with the TEIP were the *School Principals' Attitudes toward Inclusion* (SPATI) scale to measure teacher attitude and the *Concerns about Inclusive Education Scale* (CIES) to measure teacher concerns about inclusion (Sharma & Sokal, 2015). These instruments or similar scales, combined with demographic information, helped researchers understand correlative and sometimes predictive factors of teachers' beliefs, attitudes, and concerns around inclusion.

Sharma and Sokal (2015), from their review of extant literature, suggest that research is inconclusive when it comes to the malleability of teacher attitudes toward inclusion. They suggest, however, that a sociological model of learning, where teachers acquire skills on molding the classroom pedagogy and environment, is more effective than a diagnostic, medical model in changing teacher concerns that are often the drivers of teacher attitudes. In another study, Sokal and Sharma (2014) relate that teacher confidence correlates with teaching efficacy; put another way: attitude influences teacher behaviour which influences teacher success. Montgomery and Miranda (2014) suggest that efficacy in collaboration (as measured by the TEIP) is predictive of

positive teacher attitude (as measured by the *Sentiments, Attitudes, and Concerns about Inclusive Education - Revised* (SACIE-R) scale. Moreover, they found that positive attitudes toward inclusion are equated with higher teaching efficacy.

Van Hecke (2016), in her wide-ranging phenomenological research on similarities and differences between teachers in inclusive classrooms in Canada and Belgium, along with Sokal and Sharma (2014), who studied teacher behaviours from a vastly different quantitative perspective, agree that teacher attitude is very much context dependent. In a study comparing pre-service teacher beliefs with their locus of pupil control, Rideout and Koot (2009) discovered that context played a large part in changing pre-service teachers' practice and subsequent beliefs about humanistic, student-centred learning if student teachers were placed in the context of teaching practicum placements where their cooperating teachers had a custodial, teacher-centric pupil-control locus. Since teacher attitude appears to be context dependent, it is worthwhile to look at one of the most important considerations, the student factor.

Student factors. Fifteen of the 26 studies made reference to student behaviour as being a factor in teacher efficacy. Archambault, Kurdi, Olivier, and Goulet (2016) demonstrated that "unconstructive and coercive teacher-student interactions" had a detrimental effect on students' feelings about school (p. 221). They note that teachers must be cognizant of their behaviour toward students and intentionally positive with students: in other words, project an invitational stance. Yet even in this arena of concern and difficulty for many teachers, there is optimism, especially as one looks at how inclusionary practice has demonstrated positive effect on student behaviour. Occupational therapists Hui, Snider, and Couture (2016) piloted a program in Quebec where instead of students with behavioural concerns being their clients, the classroom teacher was the client. After a one-day workshop, the occupational therapists did eight follow-up visits in

the classrooms with teachers, working on three or four teacher-chosen goals with the following support: a structured process of goal setting; emotional support; and information exchange.

Follow up from that study showed that as a result of this effective form of professional development, teachers' broadened repertoire of strategies to support students with behavioural challenges was maintained. The longitudinal British study done by Covell, McNeil, and Howe (2009), based upon their earlier work in Cape Breton, shows evidence that student empowerment is correlated with higher student engagement as well as being correlated with lower teacher burnout (Friedmann & Covell, 2012). Katz (2013, 2014) concurs, suggesting that inclusionary practice that includes flexibility of student grouping arrangement increases student social engagement. This in turn increases pro-social student behaviour and is related to reduction in teacher stress (Katz, 2014).

Jordan, Glenn, and McGhie-Richmond (2009), through the research into effective factors in the *Supportive Effective Teaching* (SET) project, pointed out that teachers who have good time management, classroom management, and lesson presentation and delivery not only engage students more, but more time-on-task allows them to circulate more to students with disabilities and those at risk. Therefore, effective inclusive teaching works with all students. Ideally, new teachers emerging from teacher education programs have exposure, experience, and efficacy with inclusive teaching strategies through their teaching programs and practicum placements. Sokal, Woloshyn, and Funk-Unrau (2013) demonstrated that inclusionary practicum placements can help new teachers with behaviour management efficacy. Peebles and Mendaglio (2014) who have piloted a program called Individual Direct Experience Approach (IDEA) providing pre-service teachers with hands-on experience teaching students with disabilities through a "living case study" practical teaching experience, prepare teachers who have less anxiety about teaching

students with disabilities (p. 250). Yet as Rideout and Koot (2009) explain, that ideal does not always occur. Even if it does, in the front line of the classroom, teachers can sometimes lose their way. The third theme that emerged, one of support for all classroom teachers, was the theme of effective professional development.

Professional Development. As was evidenced in the Hui, Snider, and Couture (2016) study, the most effective type of professional development for lasting change in a classroom is not a one-time workshop. Traditional stand-and-deliver professional development was conducted by Leblanc, Richardson, and Burns (2009) with minimal results. Effective professional development is instead an ongoing supportive relationship with in-class follow up and teacher choice and input as to the direction of needed development choice (Hui, Snider, Couture, 2016; Katz, 2013; Katz, 2014). Katz (2013, 2014) has been involved in that type of professional development through the *Three-Block Model of UDL*. After one initial whole-school training in this method, teachers self-selected to become part of an experimental group by being involved in further training; the control group opted to continue without further training (Katz, 2014). Katz provided subsequent training to the experimental group in three more half-day training sessions; supported them in planning a unit together using UDL methods (backward design, differentiated instruction) and developing rubrics; and was available for individual consultation as needed over a period of several months. Results of this method of professional development showed statistically significant increases of student engagement, even at the high school level, where engagement typically drops (Katz, 2013). Teachers involved in the intervention “reported improved student self-concept, risk-taking, and resiliency....that students were more socially engaged, had more friends, and interacted more positively with others....[and] that school climate as a whole had improved” (Katz, 2014, p. 12). When students are engaged in learning

and classrooms have reduced behavioural challenges, teachers feel "like they are making a difference" and stress and burnout decreases (Katz, 2014, p. 13). Moreover, teachers reported that their workloads were reduced since use of the Three-Block Model of UDL drastically reduced the need to "plan multiple programmes, monitor behavioural plans, and solve issues related to assessment" (Katz, 2014, p. 14). This resulted in "teachers' willingness to change their instructional practices, and reflect on what had, or had not, been working for them, and how they could take ownership for creating more inclusive classrooms" (p. 14). Elements of this type of ongoing professional development include supportive coaching and collaboration with the coach and teaching peers (Katz, 2013, 2014; Klinger, Volante, & DeLuca, 2012).

Collaboration. As Robertson-Grewal (2010) and Katz (2014) have noted, collaboration, ideally in learning communities, is necessary for knowledge creation and change. Efficacy in collaboration is predictive of positive teacher attitude (Montgomery & Mirenda, 2014). In their phenomenological research, Duenkel and Pratt (2013) described the emerging educational practice of ecological teaching through a unique master's program. This nascent practice is a "critical, creative, and integrative approach to teaching and learning that recognizes...that educational, environmental, and social justice issues are inextricably linked" (p. 127). The action research process they described entailed a process of deconstruction of previously held beliefs and a critical review of those beliefs resulting in transformative change. Through the community collaboration in this action research model, teachers came to experience the paradigm shift. As teachers moved "from chrysalis to butterfly" they found the process mushy and messy (Duenkel & Pratt, 2013, p. 135). Robertson-Grewal (2010) describes this culture of collaboration as "creative chaos" (p. 27). In the Duenkel and Pratt (2013) study, teachers were very uncomfortable with the process that was rooted in collaborative learning communities, but

through "the transformative power of reflection" not only their professional lives but their personal lives became more balanced (p. 137).

In their study on effective professional development, Sokal and Sharma (2014) indicate that effective professional development can ameliorate teacher "concerns about acceptance...[and] declining academic standards" (p. 65). Jordan, Glenn, and McGhie-Richmond (2009) noted in the *Supportive Effective Teaching* (SET) project that in an effective inclusive classroom, academic standards are well supported:

Students with disabilities and at risk in the classrooms of the three highest scoring, and arguably most effective, teachers received more instructional time at higher levels of cognitive engagement than the typically achieving students in the classes of the low-scoring teachers. (p. 261)

Sokal and Sharma (2014), through their review of literature around effective professional development, describe an ideal program as entailing between 30 and 100 hours of training hours over a span of six to 12 months, with "in-house professional learning communities" (PLCs) and coursework as part of the training (p. 67). As discussed earlier, teacher epistemology and attitudes are critical components in the effective implementation of inclusive teaching, but this review of effective professional development demonstrates a path forward in that transformation.

School culture and ethos. Professional development, as described above, does not transpire in a vacuum. For this type of professional development as well as inclusionary practice to occur, Jordan, Glenn, and McGhie-Richmond (2009) and Jordan, Schwartz, and McGhie-Richmond (2009) indicate that the school ethos itself must be a supportive and collegial environment. This is especially true for new teachers to the profession, as a school environment that supports a growth mindset can ameliorate any fixed mindset teachers may acquire (Jordan,

Glenn, & McGhie-Richmond, 2009). Furthermore, teachers who work in schools where inclusionary practice is part of the school ethos demonstrate change in their own belief system and practice, especially as they "acquire evidence of improvements in student learning" (Jordan, Schwartz, & McGhie-Richmond, 2009, p. 541). The process of an epistemological change toward inclusion is also mediated through reflection on their own belief system, having that epistemology challenged by supportive colleagues and mentors (Jordan, Schwartz, & McGhie-Richmond, 2009).

School leadership. Pivotal to the creation of a supportive school culture and ethos is the principal of the school, the school leader. Principals are the instructional leaders in the school (Katz & Sugden, 2013). Accordingly, in the case study described by Katz and Sugden (2013) of a principal who implemented inclusive education, they note that principals must provide both active and passive support when making a transformation to an inclusive school learning environment. Principals' necessary role of setting the direction of the change and developing people (their teachers) leads to increased positive teacher attitudes (Leithwood & Sun, 2012). Katz and Sugden (2013) and Leithwood and Sun (2012) agree that a distributed leadership style, where the principal leads and supports, but hands off roles and responsibilities to teacher leaders, is highly effective. Robertson-Grewal (2010) describes principals as "middle-up-down" facilitators that mediate change (p. 32). Not only do they set the direction for change, but they hold responsibility for the practical aspects of providing resources, adjusting schedules and workloads, ensuring time for school-based professional development and collaboration (Katz & Sugden, 2013; Sokal & Sharma, 2014). In a less managerial role, but in their equally important role as instructional leader, principals also use student data to support change, important for all students, but especially crucial for students who struggle (Katz & Sugden, 2013). This data-

driven process provides more timely assessment for eligibility for extra supports (for example, through an RTI model) than does the traditional medical, deficit model (McIntosh et al., 2011). Principals can also use data in a different manner with their teachers, using assessment tools for teacher efficacy, such as the TIEP scale described earlier, in a formative manner, to pinpoint areas for targeted professional development (Sharma & Sokal, 2015). The case study by Katz and Sugden (2013) demonstrated that three traits set apart school leaders who pilot successful inclusive schools. These traits include direction-setting, capacity-building, and organizational reshaping (pp. 21-22). The change in that particular school melded servant leadership, leveraging of school plans, and collaboration to effect a change in effective teaching practices that outlasted the administrator.

Effective teaching practices and frameworks. In her research on similarities and differences between teachers in inclusive classrooms in Canada and Belgium, Van Hecke (2016) describes effective teaching practices that were noted in the conversations she recorded. The paradigm of these dedicated inclusion teachers is that students are individuals with individual strengths and challenges; that cooperative learning benefits students; there is importance in belonging and community, based on diversity and student ownership. Collaboration with the adults in the class and school means working together for the student.

Lewthwaite and McMillan (2010) describe successful teaching among students in Qikiqtani (Baffin Island) as having hallmarks of inclusive teaching as have already been described. These effective teachers utilized a concrete manner of teaching, using regular formative assessment to give feedback. Open communication between teacher and students fostered success; students needed to be partners in the process of learning. Specific teaching strategies that contributed to success included effective oral communication, sometimes difficult

to accomplish because the students' first language was not English. Successful teachers slowed their communication, used modeling and visual representation, and multiple ways to teach the concept. These teachers also encouraged peer-teaching and collaboration and scaffolded concrete investigations, utilizing local elders and stories to engage the students in learning. Teachers who took responsibility for the learning rather than blaming students or outside influences were more successful.

Three other effective frameworks have been described. Covell, McNeil, and Howe (2009) demonstrated that the implementation of the *Rights, Respect, and Responsibility* (RRR) curriculum, based on the UN Rights of the Child, resulted in high levels of engagement at school. Three student behavioural markers were analyzed: respect for others' rights, respect for others' belongings, and participation. Three teacher burnout scores were also analyzed: emotional exhaustion, depersonalization, and personal achievement. The results of their longitudinal research demonstrated that in all facets, schools that had implemented RRR fully had lower rates of teacher burnout symptoms in all three areas, maintaining or lowering the symptoms over the length of the study.

A second framework piloted by Duenkel and Pratt (2013), previously described at length, outlined the educational practice of ecological teaching through a unique master's program that uses an action research format. The action research project as described by Duenkel and Pratt (2013) shows promise, but to be effective in a school environment, it would need to be modified to be effective for working teacher professionals. Sokal and Sharma (2014), who describe an ideal framework as entailing between 30 and 100 hours of training hours over a span of six to 12 months, with "in-house professional learning communities" (PLCs) and coursework as part of the training, fully endorse the third framework, the Three Block UDL model as an extremely

effective model for inclusive education (pp. 67, 68).

Systemic support and challenge factors. Challenge factors that were noted throughout these studies include an ongoing and pressing requirement for planning time (Katz, 2014); the urgency to find time for teacher collaboration, since without this, even inclusive teachers experience aloneness (Robertson-Grewal, 2010); concerns about resources, including finding resources for differentiated instruction, along with workloads (Katz, 2014; Sokal & Sharma, 2014); and the fear of resistance from colleagues and parents as changes toward inclusion occur (Katz, 2014). These concerns and challenges are real, and must be addressed. As Sokal and Sharma (2014) have expressed, resources and workloads are not only school but system responsibilities.

This research was not exhaustive; in-depth exploration was beyond the scope of this paper. Although a plethora of other research is available, this dipping into the research water provided a basis for moving forward in building inclusive classrooms and schools.

CHAPTER FIVE: DISCUSSION

One objective of the study was to populate a visual organizer to help explain the research in a manner that could be easily understood. As already stated, a narrative synthesis of the data was used to discover underlying themes of current effective methods of supporting schools and teachers in developing inclusionary classroom practice within Canadian schools. The literature revealed themes occurring predominantly in Canadian schools and a nascent visual organizer was populated. Those themes remained in the re-populated organizer, with minor changes, as explained below. The updated visual organizers of the heart, head, and hands are displayed, but a visual organizer of the process has also been added so readers understand the process of overlaying and juxtaposing the research themes with the original themes (see *Figure 5*). The research themes of 1) teacher identity and epistemology; 2) teacher attitudes; 3) professional development; 4) school culture and ethos; 5) school leadership; and 6) effective inclusive teaching practices and frameworks were added, either as factor changes or as sub-factors as noted below.

The “heart” motif retained the themes from the initial literature review: *relationship-driven, inviting, self-reflective, self-aware and honest, and resilient*, but a sixth factor, *world view*, initially in the “head” motif, was moved to the heart motif. The sub-factor *teacher identity and epistemology*, a factor resulting directly from the research, was added to the *world view* factor because the literature revealed that teacher identity and epistemology are deeply embedded in a teacher’s heart.

The “head” motif retained the themes from the initial literature review: *lived experience, legal responsibilities, self-efficacy, social justice mindset, and strength-based outlook* remained the same. The sixth factor, *world view*, was changed in the updated motif to *teacher attitude*,

with the sub-factor, *student factors* added. The change from *world view* to *teacher attitude* occurred because world view, moved to the “heart” motif appears more of a core trait while teacher attitude may be more changeable.

Finally, in the “hands” motif, the themes *planning and strategy toolbox*, *support from principal and system*, and *professional development* were retained. The theme, *collaboration*, was moved into a sub-factor of professional development, as the research showed that collaboration is embedded in professional development. As well, sub-factors of *long-term*, *supportive coaching*, and *inquiry learning* were added during the re-mapping process, although these were not part of the larger motif. The research theme *effective practices and frameworks* was shown as a sub-factor of *planning and strategy toolbox*. The two research themes of *school culture and ethos* and *school leader* were added as sub-factors of the general theme, *support from the principal and system*. These described changes align the initial visual with the study findings.

The exercise of re-populating the visual organizer made it evident that current Canadian research supports and expands the initial research in the literature review. The new research expanded the focus on the “heart”, where the factor of teacher epistemology and identity will be revisited.

Model for Change

A second objective of the study was to outline a model for school systems to use to support the implementation of inclusion. There are many excellent models for schools to follow for implementing inclusion, and it is worthwhile for schools or systems to review these models because much can be gleaned (DiPetta et al., 2010; Katz, 2012; McLeskey & Waldron, 2000; Pudlas, 2010; Purkey & Novak, 1996). However, to take even those steps, it is necessary to plan

a way forward. Drawing from the field of special education, using a tool familiar to educators, the “individual education plan” can be adapted as a system tool. This tool, along with others familiar in the special education field, can be adapted for systemic change, perhaps renamed an “Inclusionary Education Plan”. The first step is to assess: where is the system currently situated in its move toward inclusion? A second question, projecting forward, follows. Where do we want the system to be five years from now? Working backward from that long term goal, utilizing another tool familiar to special educators, the *Planning Alternative Tomorrows with Hope* (PATH) or a similar format, the team moves backward from that goal to current reality, outlining steps to be taken in the long, medium and short term (Provincial Integration Support Program, 2015; Theoharis & Causton, 2014). The second step is to choose, from among the short-term goals, two or three specific areas for focus: goals that are a priority, but goals that are realistic and do-able. These goals should encompass system and school-level goals, including specific schools within the system (or classrooms if this is implemented in a single school) based initially partly on the openness of the schools or individuals who will become the pilot groups. Those goals would then be drawn up with specific SMART objectives to meet those goals: objectives that are specific, measurable, agreed upon, realistic, and time-based. Measurement markers and a timeline aid in bringing this dream to reality.

Supports for Hands

Planning is crucial, but tools to be used for implementing those plans are also necessary. Probably the most straightforward and effective way to initiate change is to begin with the “hands” of teachers, through training to support classroom change. As Sokal and Sharma (2014) outlined, the ideal professional development to support inclusion is one that entails between 30 and 100 hours of training hours over a span of six to 12 months, with “in-house professional

learning communities” (PLCs) and coursework as part of the training (p. 67). As we have also seen, these researchers fully endorse the Three Block UDL model as an effective model for inclusion. The flexibility of this model makes it worthwhile to be considered as a vehicle for professional development for inclusion in a small system (Katz, 2013). To be successful, the Three Block UDL model is predicated upon local school personnel, ideally a support teacher, or in a small school, the principal as instructional leader, coming alongside the classroom teacher to provide classroom support. If implemented, core staff at the system level should be knowledgeable about the model, with the capability of training support teachers or principals as the school instructional leaders, in implementation at the school level. A specific goal at the system level would be to choose one or two schools, perhaps initially working with specific classrooms within those schools, as pilot projects or case studies. System educators would work with learning support teachers or principals to support the classroom teachers, documenting, collaborating, and making necessary course adjustments through action research supported in professional learning communities.

Supports for Heart and Head

More challenging than supporting teachers’ hands is the need to support their heads and hearts. Most teachers give head assent to inclusion but heart assent is not always forthcoming (Pudlas, 2014). As research has shown, the heart is at the centre of inclusionary teaching (Jorgensen, Schuh, & Nisbet, 2006). The heart, though, is not easily malleable (Sharma & Sokal, 2015). Factors that increase the malleability of an epistemological change include teachers’ personal relationships with others who have exceptionalities as well as success at teaching using inclusionary practice (Katz, 2014; Loreman, Sharma, & Forlin, 2013; Sharma & Sokal, 2015; Specht et al., 2016). Another factor, discussed briefly in the literature review, but one that did not

come out in the recent Canadian research, is that of “calling”.

Calling. Palmer (2003) references “calling” as being fundamental to the success of education. To teach with heart, one must “follow the soul’s calling,...[rather than] bend to the forces of deformation around and within us” (p. 377). Dik, Eldridge, Steger, and Duffy (2012) outline the concept of calling as a “transcendent summons,” outside oneself, to purposeful work that contributes something to others (p. 244). The sense of calling is more than a feeling of wellbeing about one’s job. As Dik and Duffy (2015) explain, “a calling implies a caller” and a higher purpose for one’s work (p. 310). They go on to explain that “individuals who view their work as a calling are very satisfied with their work, especially in comparison with those who view their work as a job or career” (Dik & Duffy, 2015, p. 307). Yet even if one perceives he or she has a calling, that person tends to not experience the positive benefits unless they are living their calling (Dik & Duffy, 2015; Duffy, Bott, Allan, Torrey, & Dik, 2012). We often can identify teachers who live their calling by their passion and integrity (Palmer, 2003).

We also can identify those who had a calling at one time but who appear to have lost that sense of calling or are burned out. Part of the issue may be a feeling of a lack of control over one’s job: people who feel more freedom over their work perceive a calling more frequently than those who do not (Dik & Duffy, 2015). Among people who believe they have a calling, those who are more flexible in adjusting to the day to day issues their job throws at them have higher job satisfaction than those who are more inflexible; those who are inflexible, even if they identify a calling and are working within their calling, struggle more with job satisfaction (Cardador & Caza, 2012). Talking about teachers and health care workers specifically, Cardador and Caza (2012) suggest that “individuals can only burnout [*sic*] if they were once ‘on fire’” (p. 339). Is there a way back to that sense of calling for people such as these? Research tells us there

is. Dik and Duffy (2015) describe job crafting as a way to create meaning within a job, especially for those who have felt a calling in the past but who are losing the passion. Job crafting takes three forms: *task crafting*, by “altering the nature of...tasks or...adding new tasks” to keep the job fresh and exciting; *relational crafting*, by making changes in workplace relationships to enhance the job; and *cognitive crafting* by the strategy to “mentally connect that service and value it [the job] creates with the tasks one is completing” (Dik & Duffy, 2015, p. 312). Instead of losing one’s sense of calling, these studies point the way back to a sense of calling (Cardador & Caza, 2012; Dik & Duffy, 2015).

What of the teacher who may never have had a sense of calling? As with teachers who have lost their sense of calling, a re-examining of the reasons one entered the teaching profession, perhaps with a career counsellor, can help a teachers review and hopefully recognize calling. That calling may take various forms along the journey. Pudlas (2016) describes a three-fold level of calling: general calling, specific calling, and immediate calling (p. 17). The *general call* is a spiritual call; for a Christian, a call from God. The *specific call* is a call to a profession, a career. The *immediate call* is the call where, in the moment, the task immediately in front of the person is done in answer to the calling (Pudlas, 2016). This process is best done in community, even if it is the community of one other, such as a counsellor. Palmer (2007) explains that through the process of self-exploration, through community, teachers can regain their personal identity and integrity in their personal and professional lives. Palmer has designed a series of professional retreat opportunities entitled *Courage to Teach* (CTT) to help educators explore these issues in a supportive environment.

Schools have a “moral, legal, and ethical obligation to provide for the education of those with special needs alongside their non-disabled peers” (Fraser & Shields, 2010, p. 17).

Inclusionary practice meets this obligation. As Wolfensberger reminds us, we and all our students, including those with exceptionalities, have the same needs and desires from life (Cocks, 2001). This, then, is the challenge as leaders: to support teachers' hearts, heads, and hands as they include all in the life of their classrooms.

Limitations

As the literature was reviewed, it was evident that much of the research, especially the case studies, were done in large, publically-funded school districts, some of which had district-university partnerships (Hoppey & McLeskey, 2013; Katz, 2012; McLeskey, Waldron, & Redd, 2014; Scanlan & Tichy, 2014; Theoharis & Causton, 2014). Since the result of this study was intended to benefit small schools or systems, the findings must be applied within an ecology-specific setting. The availability of school- or system-based resources, especially regarding professional development for classroom teachers, may limit the effectiveness, when applied to a small school or system, of the aggregated research findings.

Long-range Consequences

Research indicates that lasting change in inclusionary education occurs as educational leaders catch and maintain a vision for education that is inclusive of all students. The desire is that this survey of current research will provide a blueprint for small schools or systems to support teachers in developing inclusive classrooms, increasing their self-efficacy and capacity, and increasing their "heart" for teaching. Long-range effects of this study will include the development of an online database of select links to support schools and small systems in finding resources to support the heart, head, and hands of classroom teachers (see *Figure 6*). Long-range effects of this study may also include the expansion of the heart-head-hands model into professional development for educational leaders to use in supporting their classroom teachers in

becoming more inclusive in their practice.

Future Research

As with any vein of inquiry, there are queries and themes that, although not within the parameters of the current study, are subjects for further research. A number of such themes have arisen through this inquiry. One such theme is role confusion between teachers and paraprofessionals. Teachers bear the moral, ethical and legal responsibility to teach all students in their classrooms, but far too often, teaching of students with special needs is delegated to the least-trained person in the classroom, the educational assistant (British Columbia Ministry of Education, 2016a; Webster & Blatchford, 2015). The teacher's responsibility includes development of the program, the curriculum, and the IEP. The teacher, not the aide, plans necessary adaptations and modifications. The role of the educational assistant is to implement the IEP, support adaptations, and advocate for the student's needs in the development of the IEP, but the teacher must retain responsibility, not only for the development of the IEP, but being vitally involved in the education of the student (British Columbia Teachers' Federation and Canadian Union of Public Employees, 2009). Without this delineation of roles and responsibilities, the liability for teachers and principals goes up exponentially. There is a need for further research on this topic as it applies to planning for inclusionary practice in a classroom.

Another area for further research is that of the role of the family in inclusionary practice. When one teaches a student, one touches the entire family (British Columbia Ministry of Education, 2016a). Teachers, at times, tend to hold themselves apart from the student's family, but there is a very deep vein for further study in supporting families of students with special needs, especially those families that do not readily make connections with the school: families with differing cultural backgrounds, families affected by poverty, families that are part of the

social-care system.

A third area of fruitful research is that of the actualization of inclusive practice with specific populations of students with special needs. An example of this is the use of the *Eight Magic Keys*, a resource developed to support students with Fetal Alcohol Spectrum Disorders (Evensen & Lutke, 1997). The implementation of supports specifically designed for students from a specific population can have far greater impact for any single population of students if they are viewed in a lens of support for *all* students in a classroom. Although not addressed in this current study, each of these themes merits further inquiry.

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TABLES

Table 1

Codes for initial heart-head-hand motif

	Code	Attribute
Heart	1A	Self-reflective
	1B	Inviting
	1C	Relationship-driven
	1D	Self-aware and honest
	1E	Resilient
Head	2A	Legal responsibilities
	2B	Self-efficacy
	2C	Social justice mindset
	2D	Strength-based outlook
	2E	World view
	2F	Lived experience
Hands	3A	Planning and strategy toolbox
	3B	Collaboration
	3C	Professional development
	3D	Support from principal and system

Table 2

Codes for revised visual organizer

Revised attribute	Code
Teacher identity and epistemology	1-TIE
Teacher attitude	2-TA
Professional development	3-PD
School culture and ethos	4-SC
School leadership	5-SL
Effective practice and frameworks	6-EPF
Systemic support	7-SS
Challenging factors	8-CF

FIGURES

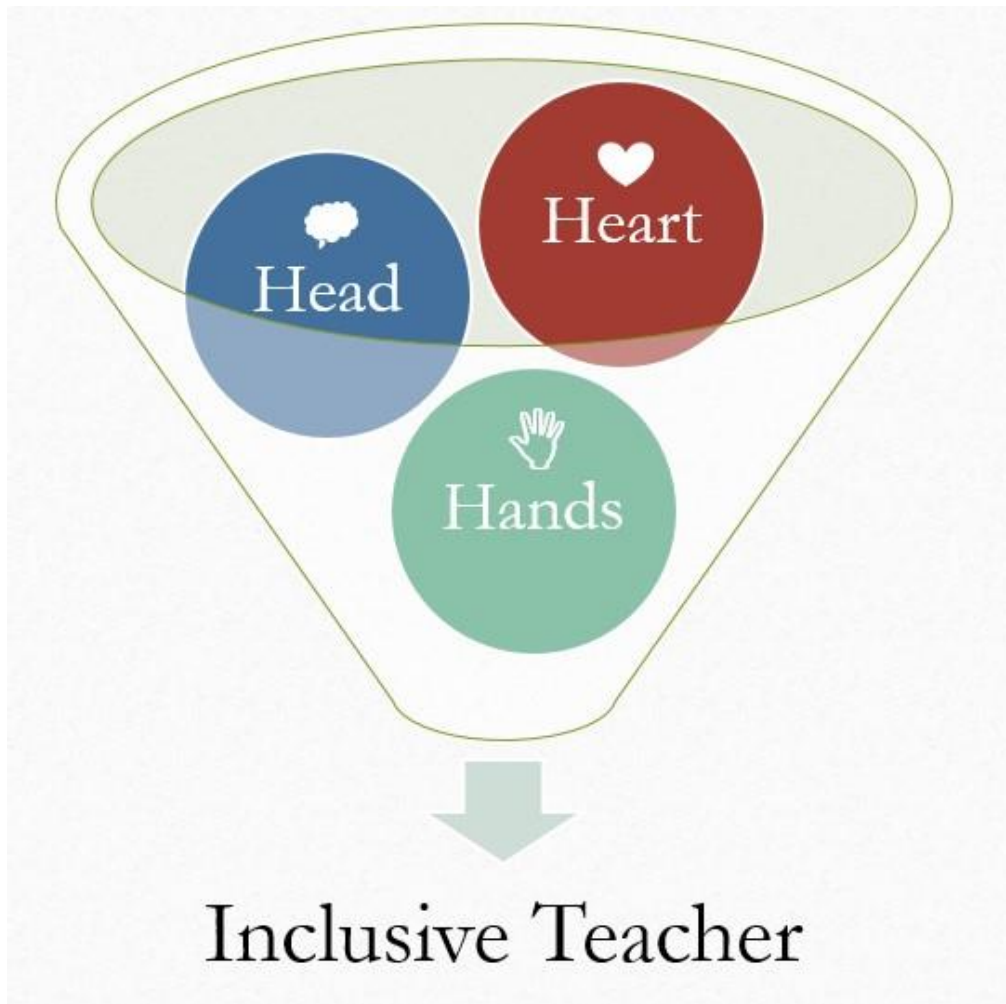


Figure 1. Factors in becoming an inclusive teacher. Adapted from "Cardiothoracic issues in teaching inclusively: The heart is more than a quad valve pump," by K. A. Pudlas, 2016, ICCTE Biennial Conference – In His Hands: Getting to the heart of teaching Christianly, pp. 1 – 35. Copyright 2016 by K. A. Pudlas.

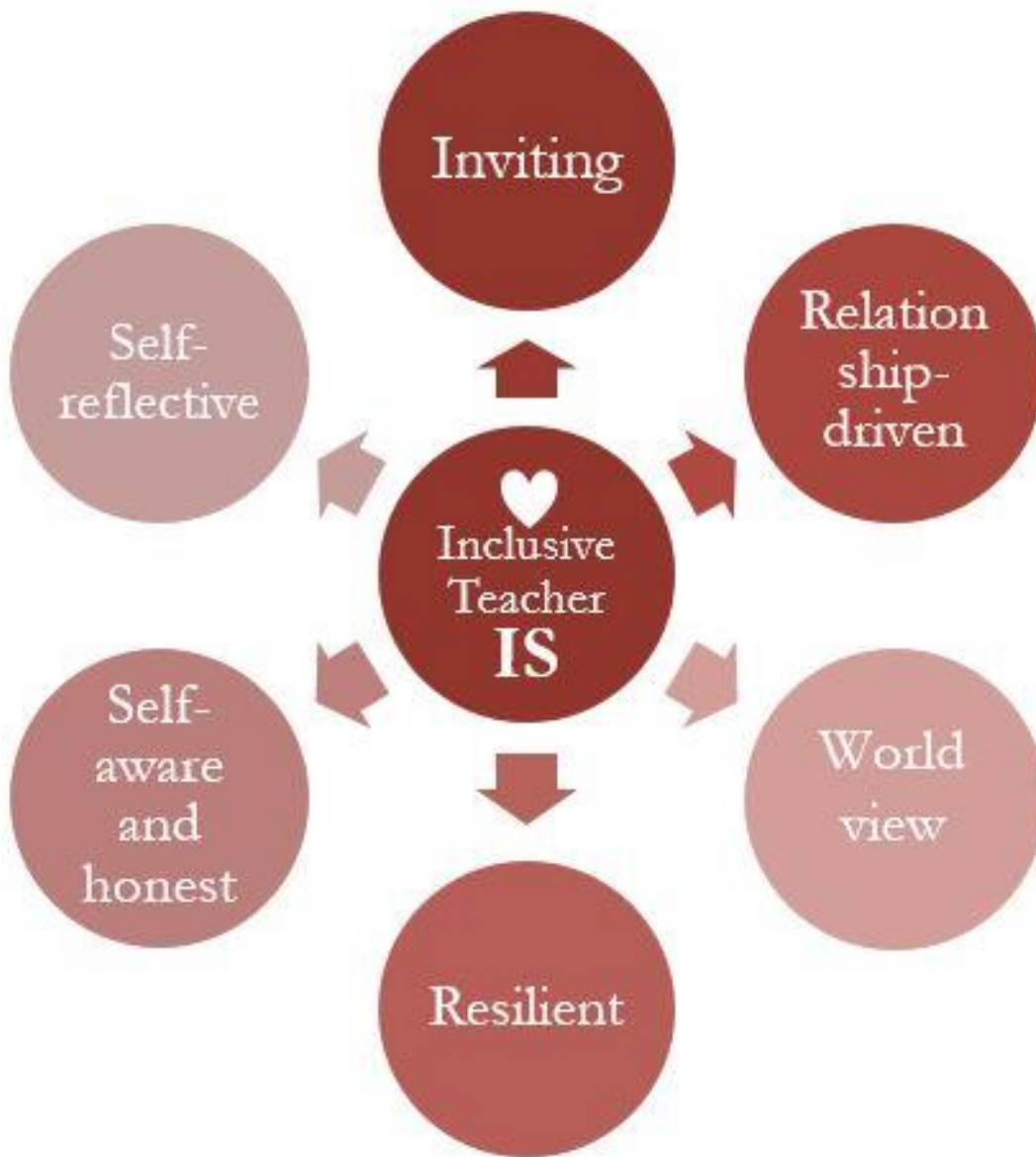


Figure 2. Factors of the heart (affect) of an inclusive teacher.



Figure 3. Factors of the head (understanding and knowledge) of an inclusive teacher.

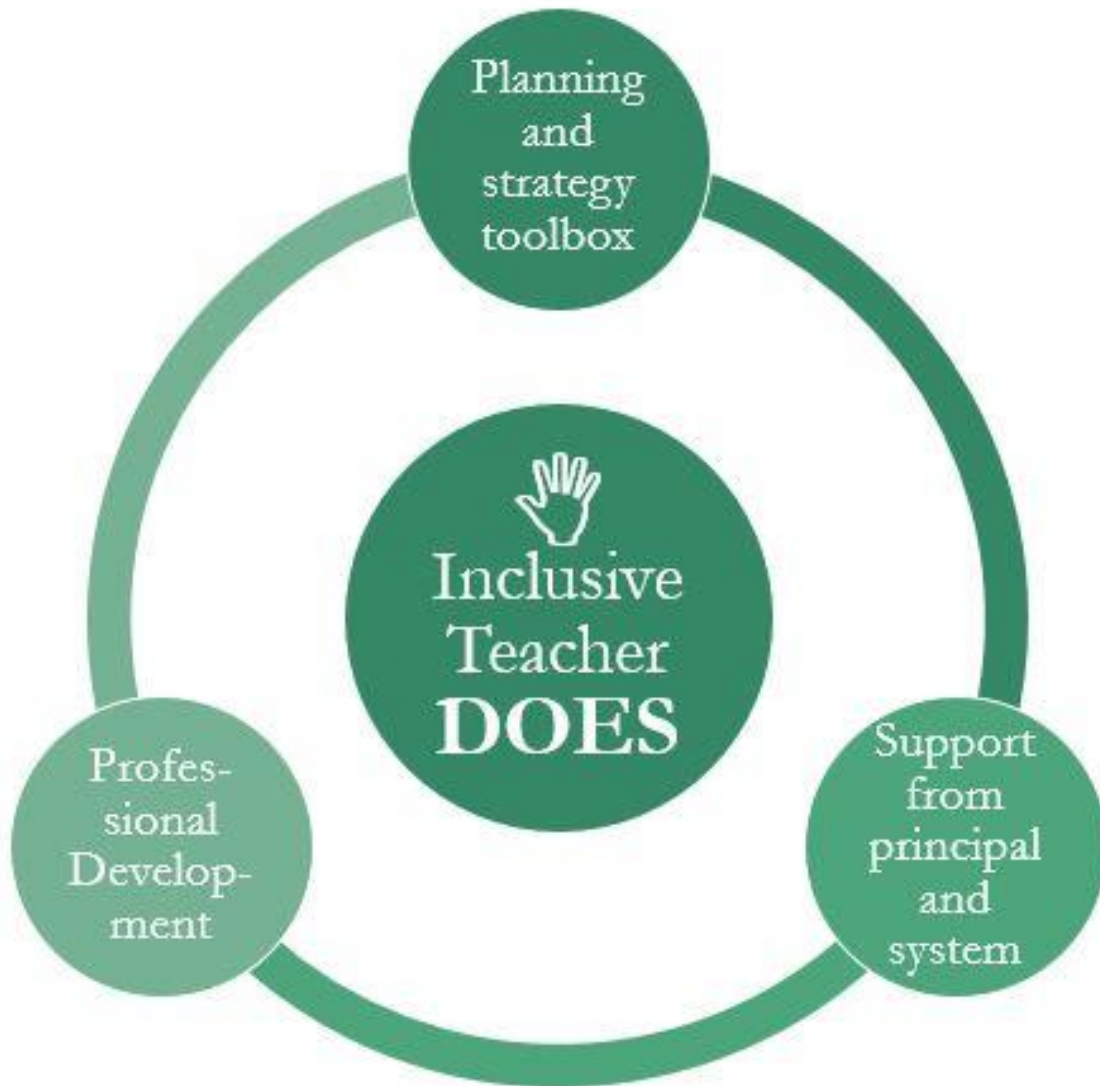


Figure 4. Factors of the hands (practice) of an inclusive teacher.

Visual Mapping Journey:

Initial “Heart” motif



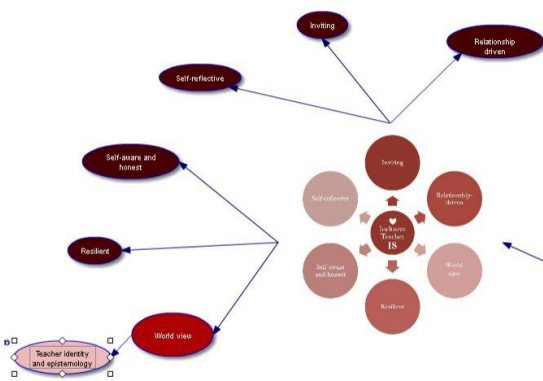
Initial “Head” Motif



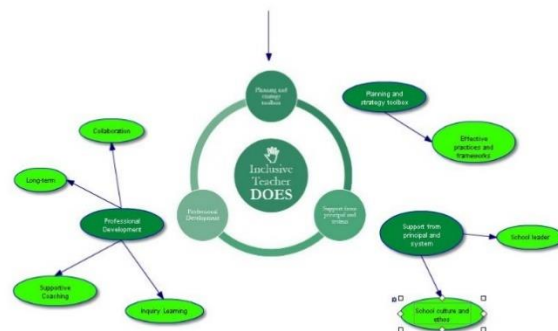
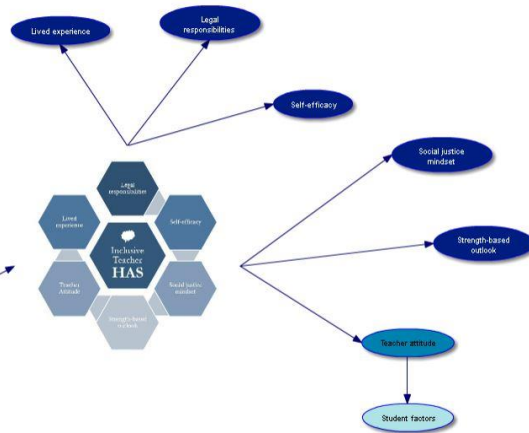
Initial “Hands” Motif



Overlay of research “heart” factors:



Overlay of research “head” factors:



Overlay of research “hands” factors

Figure 5. Visual mapping journey.

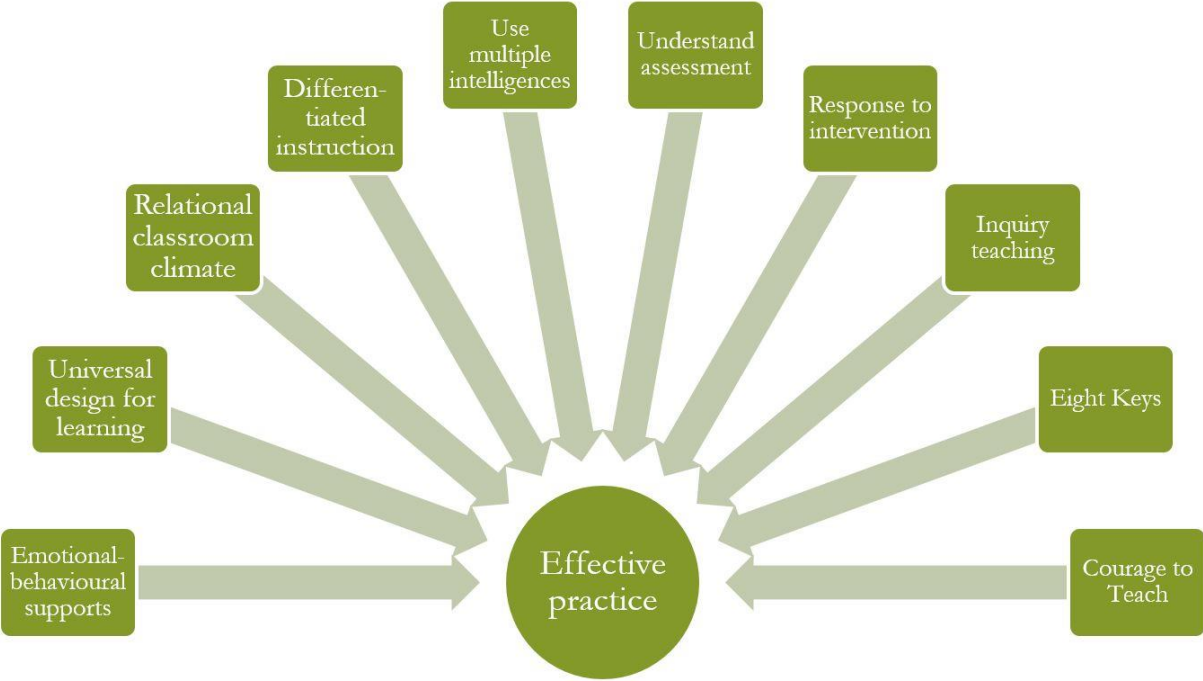


Figure 6. Practical resource supports.

APPENDIX A

Table A1

Canadian research by type and code

Citation	Type of article	Coding theme	Orig. Code	Rev. Code
Archambault, Kurdi, Olivier, & Goulet (2016)	Qt: Student/teacher scales; Simultaneous multiple regression; longitudinal In-service quantitative study	Teacher awareness of relationship crucial	1B 1C	2-TA
Covell, McNeil, & Howe (2009)	Qt: Teacher scales; Multiple regressions Longitudinal; In-service quantitative study	Not Canada High student engagement = low teacher burnout	1B, 1C, 1E 2A, 2C, 2D 3A	2-TA 6-EPPF
DeLuca, C. (2013)	Qt: Interpretive literature review; H; ID Theoretical framework	teacher self-identity about nature of people (social justice)	1A, 1D, 2C 2E, F	1-TIE
Duenkel, N., & Pratt, J. (2013)	Qt: Critical theory; Phenomenological Participatory, action research Graduate work for practicing teachers	action research; ecological education; transformative; deconstruction of held ideas; collaboration through learning communities; integration of belief and practice = work/life balance	1A, 1D, 1E 2B, 2E, 3A 3B, 3C	1-TIE 3-PD 6-EPPF
Hui, C., Snider, L., & Couture, M. (2016)	Qt: Multiple case replication design Pre-intervention-post-follow up; In-service	Behavioural supports; supportive PD; teacher choice; improved teacher efficacy	1C, 1E, 2B, 2D 3A, 3B, 3C	2-TA 3-PD
Jordan, A., Glenn, C., & McGhie-Richmond, D. (2009)	Qt: Narrative literature review, although many statistics were cited. In-service	Teacher beliefs drive teaching behaviour; school culture. Effective teaching works with all	1A, 1C, 2E, 2F, 3A, 3B 3C, 3D	1-TIE 2-TA 4-SC
Jordan, A., Schwartz, E., & McGhie-Richmond, D. (2009)	Qt: Narrative literature review, although many statistics were cited. Pre-service, in-service	Beliefs; personal responsibility; school ethos; reflection on beliefs; beliefs challenged by supportive colleagues	1A, 1C, 2E, 2F, 3A, 3B 3C, 3D	1-TIE 4-SC
Katz, J. (2013)	M: Quasi-experimental control group pretest-posttest design; In-service	Supportive long-term PD/coaching = increase in student engagement. Flexibility of student grouping	1C, 2B, 3A, 3B, 3C, 3D	2-TA, 3-PD 6-EPPF
Katz, J. (2014)	M: Quasi-experimental control group pretest-posttest design. Self-developed survey, coding of PLC conversations, classroom observation (quantitative and qualitative data); In-service	PLCs and ongoing coaching support = higher student engagement & behaviour. Increased willingness for teacher change (inclusion & personal responsibility). Reduced teacher stress & increased teacher efficacy. Negs: planning time, resistance from colleagues, levelled resources, reporting/feedback/parents	1A, 1C, 1E, 2B, 2D, 3A 3B, 3C, 3D	1-TIE 2-TA 3-PD 6-EPPF 8-CF
Katz, J., & Sugden, R. (2013)	C: Case study; principal role In-service	School leader: principal active and passive support; use of data. Instructional leader; Distributed leadership; time for school-based PD	1A, 1C, 1E, 2A, 2B, 2D 3A, 3B, 3C, 3D	5-SL
Klinger, D. A., Volante, L., & DeLuca, C. (2012)	O: External program review Observations, interviews with facilitators, participant pre- and post-surveys, field notes. Survey: CAWS, self-developed; In-service	Staggered PD with more collaboration	2B, 3A, 3B, 3C, 3D	3-PD
Leblanc, L., Richardson, W., & Burns, K. A. (2009)	Qt: Repeated measure with intervention; surveys and open-ended questions. Survey: self-developed ASD inventory; Pre-service	Ineffective PD does not yield high results	2B, 3A, 3C	3-PD
Leithwood, K., & Sun, J. (2012)	Qt: Meta-analytic review of 79 unpublished studies; carefully delineated measures of reliability and validity In-service school principals/leaders	Leadership: setting direction; developing people = increased positive teacher attitudes. Recommend distributed leadership	1E, 2B, 3B, 3C, 3D	5-SL
Lewthwaite, B., & McMillan, B. (2010)	Qt: Grounded research; phenomenological research In-service	Relationship with students; personal responsibility; concrete teaching; willingness and ability to adapt to students (UDL style) = successful inclusive teachers	1A, 1B, 1C, 2B, 2D, 2E 2F, 3A, 3B	1-TIE 6-EPPF
Loreman, T., Sharma, U., & Forlin, C. (2013)	Qt: Analysis of variance; Pre-service; Assessment tool: TEIP	Pre-service Previous interaction w/ people w/ disabilities = higher efficacy; previous training. Primary trained higher w/ behavioural	2A, 2B, 2F 3C	1-TIE
McIntosh, K., MacKay, L. D., Andreou, T., Brown, J. A., Mathews, S., Gietz, C., & Bennett, J. L. (2011)	Qt: Narrative literature review; In-service	Assessment for eligibility better through RTI than a medical/deficit model	2D, 3A, 3B 3C, 3D	5-SL
Montgomery, A., & Miranda, P. (2014)	Qt: Correlation and multiple regression analysis; in-service; Convenience sample	Teachers w/ positive attitudes = better teaching efficacy; Efficacy in collaboration was predictive of positive teacher attitude.	1B, 1C, 2B, 2D, 2E, 3B 3C, 3D	2-TA 3-PD
Richert, C. (2016)	Qt: Systematic Literature Review; Master's Thesis; Pre-service	Pre-service: Pre-service training does increase teacher efficacy for inclusion. To go further: question assumptions about nature of learning; teacher is responsible.	2A, 2B, 2E 3C	1-TIE
Rideout, G. W., & Koot, R. A. (2009)	M: Quasi-experimental control group pretest-posttest design; Survey, descriptive narrative of post survey interviews (quantitative and qualitative data); Pre-service	Pre-service. Beliefs and attitudes toward student control. Humanistic vs custodial. Imitate co-op teachers. Instead, cognitive dissonance; integrate practical and book knowledge; written reflections; wrap-around collaboration	1A, 1D, 2D, 2E, 2F, 3A	1-TIE 2-TA
Robertson-Grewal, K. (2010)	Qt: Semi-structured interviews; good description of research method Framework Nonaka's theory of organizational knowledge In-service	Collaboration critical to knowledge creation and change. Messy, "creative chaos", principals as instructional leaders. Aloneness	1A, 1B, 1C, 1E, 2A, 2B 2C, 2D, 2E, NOT: 3B, 3C 3D	1-TIE 3-PD 5-SL 8-CF
Sharma, U., & Sokal, L. (2015)	Qt: Pre-test - intervention - post-test; Pre-service	Pre-service. Malleable attitude inconclusive. Humanistic sociological model more effective than medical model. Seeing inclusion modeled in schools of education; practicum placement; contact w/ people w disabilities	1A, 1D, 2A, 2B, 2D, 2E 2F, 3A, 3B, 3C	1-TIE 2-TA 3-PD 5-SL
Sharma, U., Loreman, T., & Forlin, C. (2012)	Qt: Development of an assessment tool (TEIP); Norming; Factor analysis; Pre-service AND in-service	Effective practice efficacy scale; teacher efficacy; collaboration; managing disruptive behaviour	1E, 2B, 3A 3C	3-PD 5-SL

Table A1, Continued

Citation	Type of article	Coding Theme	Orig. Code	Rev. Code
Sokal, L., & Sharma, U. (2014)	QT: Factor analysis of assessment tools In-service	Attitude influences behaviour which influences success. Confidence = efficacy; Training affects some concerns but not others (resources and workloads). Schools & district responsibility. Lit review; most effective PD=30-100 hours over 6-12 months, with in-house PLCs; coursework.	1A, 1E, 2A, 2B, 2D, 2E 3A, 3B, 3C, 3D	2-TA; 3-PD 5-SL; 6-EPF 7-SS; 8-CF
Sokal, L., Woloshyn, D., & Funk-Unrau, S. (2013)	QT: Pre-test - intervention - post-test; Pre-service	Pre-service. Training helpful. Practicum helpful if done in inclusionary classrooms for managing behaviour	2A, 2B, 2F, 3A, 3C	2-TA
Specht, J., McGhie-Richmond, D., Loreman, T., Miranda, P., Bennett, S., Gallagher, T., . . . Cloutier, S. (2016)	QT: Factor analysis of assessment tools with demographic information; Pre-service	Pre-service. Belief about learning; student malleability vs. fixed; teacher vs. student centred. Student-centred beliefs = higher efficacy. People w/special needs	1A, 2B, 2C, 2D, 2E, 2F 3A, 3B, 3C	1-TIE
Van Hecke, S. (2016)	QT: In-service; Master's thesis; Qualitative phenomenological; Interviews of teachers in Belgium and Canada	Beliefs, collaboration, inclusionary practice (UDL). School-based concerns re: resource deployment.	1A, 1B, 2A, 2B, 2D, 2E 3A, 3B, 3C, 3D	2-TA 6-EPF

APPENDIX B

Supplemental Material

Supplemental Material for

Successful Inclusive Practice in Canadian Schools: A review of the literature – 2009 to Present

H. Lisa Stevens

File:

Stevens-KT-ResearchResults-Final.xlsx

This content was submitted by the author as supplemental material.