DEVELOPING EDUCATOR CAPACITY USING JOB–EMBEDDED COACHING

DEVELOPING EDUCATOR CAPACITY USING JOB–EMBEDDED COACHING: A COLLECTIVE CASE STUDY

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LAY ABSTRACT

As research about childhood disability increases, teachers are becoming more aware that the difficulties students experience at school may be part of an underlying health–related or developmental problem. Teachers attend professional development workshops to learn new skills; yet applying those skills in the classroom is an ongoing challenge. Daily practice and long-term training are more effective ways to develop teaching skills. One way of achieving this is through job-embedded coaching. Job–embedded coaching involves an expert (in this case an expert on disability) who coaches the teacher in the classroom during classroom time about different teaching techniques that will include and benefit all students. This research describes how two separate Ontario research teams (one health-based and one education-based) used job–embedded coaching to improve teachers' abilities to teach students with a variety of learning needs. In one project, an occupational therapist acted as the job–embedded coach, while in the other project, the coach was a teacher with training in special education. This research compared both projects to learn more about what made coaching work, for whom it worked for, how it worked, and why it worked. The findings of this research showed that reasons beyond coaching alone were responsible for its success. The approach, perspectives, and culture coaches brought to the schools were important and were influenced by the environments to which the research teams belonged. The alignment between coaches' approaches and culture and the school's culture and vision was important to the success of coaching as well as to teacher, coach, and student outcomes. Job–embedded coaching as a form of professional development does work and can be improved in the school settings with a shared understanding about students with complex learning needs.

ABSTRACT

Job–embedded coaching, whereby an expert in a particular knowledge domain such as childhood disability, teaching, or special education actively works and collaborates with educators long–term, has been demonstrated to be a successful approach to developing educator knowledge and practice. In consultative models educators may consult colleagues within the school, such as health care professionals and fellow educators, or they may attend professional workshops. However, consultative do not efficiently address how educators can better support students' learning challenges in daily teaching practice and this knowledge is difficult to attain through traditional short–term professional development. The learning, social, and behavioural needs experienced by children and youth with disabilities frequently stem from underlying complex health care needs and are oftentimes too challenging for educators alone to address. Using a realist evaluation framework—which examines what works for whom and how in a given setting— this multiple case comparison critically analyzed two separate cases that used job-embedded coaching in Ontario schools to build educator capacity about teaching children with diverse needs within the general classroom. One case was grounded in the rehabilitation model of service delivery whereby the coach was an occupational therapist, and the other case was grounded in education and employed a teacher with training in special education in the coach role. Examining context revealed that factors beyond coaching were responsible for its success. The contexts to which the implementing leaders belonged informed project driver mechanisms (e.g., professional training, designation, perspectives and experiences, model of service delivery) important for service delivery, teacher, coach, and student outcomes. Community mechanisms associated with the environment in which coaching was implemented (e.g., community culture as well as school ethos and school priorities) also were important for all outcomes. The alignment of project driver mechanisms with community mechanisms was important for the way in which service delivery was adopted. Job–embedded coaching is an effective method of professional development and its success is greater when a congruency in beliefs, priorities and culture exists in collaborative partnerships.

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Finally, I would like to acknowledge a young woman named Danielle who played a pivotal role in my journey.

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LIST OF TERMS AND ABBREVIATIONS

CCAC	Community Care Access Centre
CMO	Context, Mechanism, Outcome
DCD	Developmental Coordination Disorder
DI	Differentiated Instruction
DSB	District School Board
EDUCATOR	includes teachers, educational assistants, librarian, resource and special education persons who support students' educational needs in the classroom
ELKP	Early Learning Kindergarten Program
IEP	Individual Education Plan
IPRC	Identification, Placement and Review Committee
KTA	Knowledge to Action
MOE	Ministry of Education
MOHLTC	Ministry of Health and Long–Term Care
OT	Occupational Therapist
OTs	Occupational Therapists
P4C	Partnering for Change
RTI	Response to Intervention
RAIL	Research and Advocacy in Inclusion Lab
SHSS	School Health Support Services
TEACHER	Classroom educator registered by the Ontario College of Teachers
UDL	Universal Design for Learning
UNESCO	United Nations Special Education, Scientific and Cultural Organization

DECLARATION OF ACADEMIC ACHIEVEMENT

As a research assistant and research associate, this doctoral student was closely involved in the two described research projects. Responsibilities included completing research ethic board applications, actively attending meetings, providing methodological contributions as well as was being involved in data collection, analysis and dissemination. This dissertation presents original work of the doctoral candidate, which was independent from the research purposes of the respective projects described. The two broader research projects served as *cases* for examining contexts and experiences for the purpose of gaining perspective about the problem at hand. This author's supervisor and supervisory committee oversaw the development of this research to ensure originality and authenticity of work.

CHAPTER ONE: INTRODUCTION

Research Motivation

The motivation to conduct this research developed from my own professional experience and personal growth. By the end of my Psychology degree, I was absorbed in and captivated by brain and behaviour relationships as well as neuropsychology. At this time, I was employed as a Rehabilitation Educator and Rehabilitation Therapist, working to transition individuals who experienced acquired brain injuries back into their communities. Aware of the gap that existed (and continues to exist) between health care and the community, it wasn't until my vocational involvement with an adolescent named Danielle when I recognized that educators lacked knowledge about the difficulties students with neurodevelopmental challenges experienced at school. Living with the effects of catastrophic brain injury, Danielle looked and acted like an average 13-year-old. In fact, there were no visible differences that would differentiate her from her peers. However, her brain injury compromised her ability to initiate tasks, feel motivated, and sustain attention for prolonged periods of time—which often led to cognitive fatigue, memory difficulties, and emotional regulation challenges. Teachers were unaware of the association between Danielle's impairments and her behaviours. As a result, Danielle was often labelled by her teachers as 'late', 'lazy', 'forgetful', 'outspoken' and 'disruptive', which oftentimes led to detention and even suspension. Upon speaking with her classroom teachers and educating them about her challenges as they related to frontal lobe development, I recognized the need to provide educators with more knowledge about the

difficulties students with acquired brain injuries (ABI) experienced. This sparked my interest in the reintegration of children and youth back to school. During the completion of my Master's research in education, I found that students who sustained an ABI demonstrated greater academic and social competence than educators' perceptions of those students' abilities. Further, educators lacked knowledge about ABI. It was at this time I embarked on my PhD in rehabilitation science to determine effective ways of building bridges to create shared knowledge between health care and education in their approach to disability.

Research Intention

My research is situated within two larger implementation projects and has introduced me to the concept of job–embedded coaching as a method of professional development to build educator capacity about teaching children with disabilities. Throughout the course of my dissertation, I explored various frameworks relevant to the effectiveness of job–embedded coaching including constructivism and andragogy; however, it wasn't until my last academic year that the realist evaluation framework was introduced and resonated with me. Intrigued, it became apparent to me that the outcomes of job–embedded coaching were a "black-box" phenomena in which the variables responsible for the success of coaching were unclear—but might be explained using the realist framework. The realist evaluation framework breaks down a phenomenon, allowing for direct observation of the conditions in which a phenomenon exists (context), as well as the variables and/or processes (mechanisms) that provide an explanation for outcomes as a function of context (Pawson & Tilley, 2004).

This thesis will describe and compare how two implementation projects [Partnering for Change (P4C), *CanChild*, McMaster University; and the Research and Advocacy in Inclusion Lab (RAIL), Brock University], delivered job–embedded coaching to build educator capacity in elementary and secondary schools. Partnering for Change was developed, delivered, and evaluated by researchers and clinicians with the assistance of the Ontario Ministry of Health and Long–Term Care. An Ontario school board invited RAIL researchers to evaluate the delivery of their board–wide change. This thesis aims to critically examine the influence that contextual variables in each project had on the outcomes of the coaching intervention using the realist evaluation framework as a guiding methodological approach. The organization of this thesis follows a traditional research experiment format. Chapter One is as an introductory preface. Chapter Two is a review of the literature outlining the prevailing problems experienced by educators and school staff in meeting the needs of children with disabilities. The second chapter also describes job–embedded coaching as an intervention to address the problems. Chapter Three defines the Realist Framework, which is the theoretical stance that substantiates this research. Chapters Four through Six are structured according to the context, mechanism, and outcome relationships of the realist framework: Chapters Four and Five describe context and outcome, and Chapter Six delves into the mechanisms. More specifically, Chapters Four and Five contain case descriptions about *how* job–embedded coaching was used to address the prevailing problems of long wait-lists and building educator capacity about inclusive strategies, respectively. Subsequently, Chapter Six presents the findings of an in-depth qualitative comparative case analysis unveiling *why* job–embedded coaching

was impactful. Finally, Chapter Seven serves as a discussion of research findings that contribute to the understanding of addressing prevailing problems associated with meeting the needs of children with disabilities in the school setting with job–embedded coaching.

CHAPTER TWO: LITERATURE REVIEW

This chapter reviews the prevalence of childhood disability in Ontario elementary and secondary school settings and the difficulties educators face in attempting to meet the needs of a diverse classroom. Childhood disability is explored from the perspectives of education and health care to illustrate the challenges and develop a better understanding of the problem. The current state of health care services in the school system is outlined throughout. Finally, this chapter highlights the need to develop educator knowledge and presents job–embedded coaching as a method of doing so. The central research problem for exploration is also described.

Childhood Disability in Ontario

There are over 2.5 million children under the age of 18 years in Ontario (Canada) and an estimated one in nine children (300, 000) who have a special need or disability interfering with physical, social, cognitive, emotional, psychological, and/or academic development (Office of the Provincial Advocate for Children and Youth, 2015). According to the International Classification of Functioning, Disability and Health (WHO, 2001), disability can be defined as "an umbrella term for impairments, activity limitations and participation restrictions. It denotes the negative aspects of the interaction between an individual (with a health condition) and that individual's contextual factors (environmental and personal factors)" (p.5). Children with disabilities are at greater risk than children without for experiencing secondary mental health sequelae such as depression and anxiety (American Psychological Association; DSMV, 2015). It is estimated that 40% of a child's day is spent at school where their primary role is to learn,

develop, socialize and be an active member in their school community, thus developing a skill set that translates outside of the classroom. Therefore, providing support and opportunities to improve students' functional, participatory, and academic outcomes require the expertise of both educators and health care service providers. Through special education programs and services, the Ministry of Education (MOE) endeavours to offer equitable education and inclusive practices for all students. In doing so, accessing special education services is a five-step process (Bennett, Dworet, & Weber, 2013). Once an educator identifies a student who may require a special education program or service, the student's challenges are discussed with the school resource teacher followed by a meeting. If necessary, the student may be referred to the Identification, Placement and Review Committee (IPRC), comprised of multidisciplinary professionals who work collaboratively to determine whether the student meets the criteria to be declared as an exceptional pupil (Bennett et al., 2013). Finally, an individual education plan (IEP) is created to accommodate or modify the curriculum based on the needs of the student (Bennett et al., 2013). It is noteworthy to mention that all students who are considered at risk can have an IEP without the formal IPRC process. Oftentimes the MOE in Ontario relies on the School Health Support Services (SHSS) professionals to assess children with disabilities as well as to provide information about impairment, function, and strategies to improve participation (Deloitte & Touche, 2010). In addition to programs and services, the MOE developed a special education policy and resource guide to support school boards, schools, and their staff to effectively deliver education to students with special education needs (Queens Printer for Ontario, 2018). To better appreciate the roles educators and health care providers have in identifying and supporting students' special

educational needs, it is important to understand the way in which disability and special needs are perceived by the disciplines of both education and health care.

Education and Disability

In 1994, the second United Nations Educational, Scientific and Cultural Organization (UNESCO) world conference, representing 92 countries, created a framework for action on special needs education. UNESCO proposed to accommodate all children with disabilities and learning difficulties by assuming that "human differences are normal and that learning must accordingly be adapted to the needs of the child rather than the child fitted to preordained assumptions regarding the pace and nature of the learning process" (UNESCO, 1994, p.7). These movements for equity in education elicited the attention of policy–makers and stakeholders to view education as an individual right. In turn, changes were made to school policies surrounding the *inclusion* of students with disabilities as well as students with ethno–cultural and gender differences . (Ellis & Axelrod, 2016; Ontario Ministry of Education, 2009).

The definition of disability in Ontario schools is poorly–defined and varies based on whether the frame of reference for the definition is grounded in a medical or educational (social) model (Oliver, 2017). The health model conceptualizes an individual with a *disability* to have an impairment to body structure or function as well as activity and participation restrictions due to a health condition (e.g., disease, disorder, injury), personal (e.g., gender, age, social factors including character and experience) and environmental factors (e.g., social attitudes, beliefs, and physical environment; World Health Organization, 2002). Alternatively, the Ministry of Education in Ontario (2017) uses the term "*exceptional pupil*" to label individuals whose learning is affected by an

identified or unidentified disability. *Exceptional pupil* is defined as a student "whose behavioural, communicational, intellectual, physical or multiple exceptionalities are such that he or she is considered to need placement in a special education program..." (Queen's Printer for Ontario, 2017a; 2017b).

The definition of *inclusion* or inclusive education is also all encompassing. The Ontario Ministry of Education refers to *inclusion* as an umbrella term to describe children with exceptionalities, as well as to describe children who are marginalized by race, sex or other forms of discrimination (Ontario Ministry of Education, 2009). Inclusive education is defined by the Ministry of Education in Ontario as "*education that is based on the principles of acceptance and inclusion of all students. Students see themselves as reflected in their curriculum, their physical surroundings, and the broader environment, in which diversity is honoured and all individuals are respected"* (Ontario Ministry of Education, 2009, p.6). Defining inclusion has been an evolving and challenging process due in part to the knowledge gaps that exist between education and health care with regard to the impact one's health has on education and visa versa. Inclusion has transformed from non–existent, where children with an IQ of 50 or less were classified as "ineducatable" (sic; Ellis & Axelrod, 2016; p7) and did not receive education, to a continuum of specialized programming where some children may be segregated in separate classrooms (referred to as self–contained classrooms) based on their challenges, and others permitted to receive education alongside age– and grade–related peers (Ellis & Axelrod, 2016; Winzer & Mazurek, 2011).

Since the inception of Ontario's first special education system over 72 years ago, the right for individuals with disabilities to receive education has advanced; yet equitable

opportunities for all individuals to succeed remain underdeveloped (Elis & Axelrod, 2016; Winzer & Mazurek, 2011). Canadian policy advises that all students with disabilities, independent of severity, receive appropriate specialised instruction and services in the general education classroom with age–related peers as a primary option (Council for Exceptional Children, 1997; Queen's Printer for Ontario, 2019). However, 40% of children in Ontario's general classrooms experience challenges and are not identified until they fail and require assessment (Finlay, 2011). Students identified with disabilities or special needs continue to receive education in self–contained classrooms in several school boards across the province, and have even been expelled from school for reasons related to their disability (Community Living, 2018). Inclusive education for students with and without special needs provides equitable opportunities, and as a result, students excel academically and socially (Gunn & Delafield-Butt, 2016; Wiener & Tardiff, 2004). To prevent the exclusion of children with disabilities and to foster inclusion, educators would benefit from more disability awareness training (Lindsay & McPherson, 2012). Traditional professional development does not sufficiently provide educators with the skills to confidently enact the inclusive practices that would create equitable learning opportunities (Forlin & Chambers, 2011; Sokal & Sharma, 2013). Numerous factors including school culture, educator attitude and belief system, training, resources, experience as well as willingness to change are instrumental in implementing inclusive practices (Dixon, Yssel, McConnell, & Hardin, 2014; Guskey, 2002; Johnson, 2006; Whitworth & Chiu, 2015; Woodbury, & Gess-Newsome, 2002); yet not all educators are trained in special education practices, which in turn can influence the aforementioned factors.

Providing all children and youth with equitable learning opportunities at school is not a novel concept, but is a challenge to implement due to the variability in the beliefs school administrators, educators, and families have about inclusive practices. Decisions to include children with disabilities in the general classroom have often been for compassionate reasons to foster fairness and equality, rather than because all children have a right to equitable learning opportunities. At present, some students may be included in general classrooms with their peers on a charity basis and for compassionate reasons (Avramidis, & Norwich, 2002; Loreman, McGhie–Richmond, Barber, & Lupart, 2009), while numerous others are still marginalized and segregated. Charity–based inclusion (also referred to as a pathognomonic perspective in the literature) places emphasis on the disability as problematic for participation (Avramidis, & Norwich, 2002; Jordan, Lindsay & Stanovich, 1997). Alternatively, rights–based inclusion (also referred to as an interventionist perspective) acknowledges education as an individual right and contests that for participation and learning to occur, there is an interaction between the student and his or her environment, where environmental barriers that prevent children from fully participating must be removed (Avramidis, & Norwich, 2002; Burghart, 2011; Clapton & Fitzgerald, 1997; Jordan et al, 1997; Lawson, 2006; Quinn, 2009). For example, in charity-based inclusion, a child might be provided with a desk in the general classroom exposing him or her to existing learning opportunities with age- and grade-related peers. To compare, educators who enact rights–based inclusion will identify the environment as problematic and create learning opportunities by identifying and removing the environmental barriers that interfere with the students' ability to participate and learn. To move to the rights-based instructional model, a change in teachers' beliefs,

attitudes, classroom practice, and subsequent learning outcomes (referred to herein as teacher change) is necessary. Achieving teacher change is based on both system (e.g., school support, advocacy, recognition, and facilitation) and experiential variables (e.g., 'seen it to believe it works') (Guskey, 2002a, 2002b). Resources are available with strategies to support rights–based practice, yet challenges continue to exist for educator adoption.

Health Care and Disability in Education

School–based health services are still in their infancy and continually evolving. School Health Support Services (SHSS) was established in 1984 by the Ministry of Health and Long–Term Care to ensure school–aged children in Ontario would have access to health services that include physiotherapy, occupational therapy, speech and language therapy, dietetics, and nursing (Deloitte & Touche, 2010). A zeitgeist of its time, health promotion worldwide became increasingly important and expanded to communities beyond the health sector. The First International Conference for Health Promotion met in 1986 and developed the Ottawa Charter for Health Promotion to achieve health for all in 30 countries, including Canada, by the year 2000 and beyond (World Health Organization, 1986).

In 2004, the federal and provincial governments created the Pan-Canadian Joint Consortium for School Health (JCSH) to integrate the health and education sectors. An internationally recognized Comprehensive School Health Framework was developed by the JCSH that acknowledged the interdependence of health and education as integral to academic and developmental success (The Pan-Canadian Joint Consortium on School Health, 2012). The school health model (figure 1) values the interrelated pillars of the

social and physical environment; teaching and learning; health school policy; as well as encourages partnerships and services as they are essential for supporting student outcomes (The Pan-Canadian Joint Consortium on School Health, 2012). Since this time, policy change has evolved towards more inclusive practices consequential to the advocacy of community organizations, elected government, funding as well as more recently included research, educator and student voice (Ellis & Axelrod, 2016; Segeren, 2012).

Visually and conceptually, the design of the JCSH model appears integrative and collaborative. In reality, the health policy, partnerships, education and environmental factors function more independently than interdependently. Speech and Language Services for example are offered and funded by the MOE *only for* language disorders (consistent with the Ministry's literacy and numeracy priorities) that do not require medical management and when language programming requires close collaboration with a student's educator (Queens Printer for Ontario, 2018a). Otherwise, in the current service delivery model, when a child is referred for health care services not related to a language disorder (e.g., speech, voice, or fluency disorders; occupational therapy), the professional (e.g., speech-language pathologist or occupational therapist) gathers information about the student's strengths and needs from the teacher(s) and/or parents(s), conducts an individual assessment, provide some direct intervention, and develops strategies for recommendation (Bayona, McDougall, Tucker, Nichols & Mandich, 2006). In this service delivery model, the OT for example, meets with, assesses and then makes recommendations for the student over the course of the year with a prescribed number of visits typically ranging from 5-10 per school year (Bayona et al.). During these visits, it is

not uncommon for the therapist to remove the student from the classroom to conduct the assessment or provide the service. This not only reinforces segregation but also reduces the opportunity for therapist–educator collaboration. The service provider might then provide a document or report of relevant findings and strategies as governed by health care frameworks (e.g., DSM V) to the child's parents who rely on the information (Bayona et al., 2006; Phelan & Ng, 2015). Subsequently, the parents or caregivers are expected to advocate for their child and share feedback with the school and child's teacher (Phelan & Ng, 2015). While health care professionals have a voice in childhood academic and social outcomes, the extent to which it's vocalized in the student's community can be improved.

To further improve the collaboration between school boards and health care service providers working within those boards, the Ontario government introduced the Special Needs Strategy in 2014. The Special Needs Strategy acknowledges the importance of identifying children and youth with "special needs", coordinating service planning, and facilitating the delivery of rehabilitation services in schools (Queen's Printer for Ontario, 2016). However, in 2018 there was a change in provincial government, which leaves the future of the Special Needs Strategy unclear.

To summarize, many students experience difficulties in school due to developmental challenges or disability. The health care and education systems define and address disability differently. The MOE recognizes that children with disabilities have a right to education, within the general classroom as the first option for learning (Council for Exceptional Children, 1997; Queen's Printer for Ontario, 2019). When a child is identified with special educational needs and requires assessment to advance educators'

understanding about how to better support the student, a referral may be made to a health care professional. Alternatively, it may suffice for educators to access MOE resources, learning opportunities, or to consult colleagues about how to adjust instructional practice (Bennett et al., 2013; Queens Printer for Ontario, 2018). The MOE abstains from using the term 'disability' and instead refers to students who require special education programming as exceptional pupils whose behavioural, communicational, intellectual, physical, or multiple exceptionalities interfere with learning. Alternatively, the MOH conceptualizes disability as an impairment, which interferes with function and participation. Therefore, the role of health care providers in the school has traditionally been to assess and remediate impairment as well as provide recommendations to improve a student's classroom participation. Although the special educational programming for exceptional pupils strives to be inclusive, in many cases students continue to experience segregated learning in self–contained classrooms as educators in the general classroom lack the training to meet their special educational needs (Forlin & Chambers, 2011; Sokal & Sharma, 2013). While knowledge and service availability are progressing, delivery continues to be difficult due to the disparate perspectives with which health care and education approach development, disability, and inclusive practices. These disparate approaches further create incongruence for how inclusive education is addressed in schools by health care providers and educators. Subsequently, studying the delivery of health care services as well as inclusive practices can provide insight about the knowledge and practice gaps in the education setting as well as what works well.

The Problem and Need for Intervention

To instructionally support the complex learning needs of students with exceptionalities inclusively at school, several identified barriers must first be considered. First and foremost, it is evident that educators require knowledge about disability and special needs to skilfully adjust classroom practice inclusively (Amr, Al–Natour, Al–Abdallot, & Alkhamra, 2016; Karlsudd, 2017; Marshall, Ralph & Palmer, 2002). Educators' lack of knowledge appears to be a secondary problem that is a by-product of several challenges educators experience with the educational system. For example, lack of adequate professional training, lack of time, resource constraints associated with budget (e.g., lack of funding to support classroom resources or educational assistants to facilitate classroom management) are well-documented challenges that prevent educators from advancing in their knowledge or practice (Avaramidis & Norwich, 2002; Gauvin–Lepage & Lefebvre, 2010; Marshall, et al., 2002; Naraian, 2014;). With insufficient time, money, or collegial support, educators are bound within the parameters of their existing knowledge and "skill set" to support the needs in their classroom. Furthermore, administrative support at the school level from leadership (e.g., principals, collegial support) also is important for a shift in practice and pedagogy to take place (Dyson, Farrell, Polat, Hutcheson, & Gallannaugh, 2004; Jordan, Glenn, & McGhie–Richmond, 2010). When inclusive practice and development of practical knowledge is a priority within the school and enacted by leadership, educators feel supported with opportunities to develop practice (Burstein, Sears, Wilcoxen, Cabello & Spagna, 2004). Similarly, attitudes and responsibility for inclusive education are important for teacher knowledge and pedagogical change (Kuyini & Desai, 2007; McGihie–Richmond, Irvine, Lorman,

Cizman, & Lupart, 2013). Teachers who have experientially learned about inclusive education first hand are more knowledgeable about how to modify practice and are proponents of rights–based inclusion (Berry, 2011; Male, 2011). Alternatively, compared to teachers who assume responsibility for inclusive education (Jordan, Schwartz, & McGhie–Richmond, 2009), educators who eschew responsibility of school–wide inclusion lack knowledge and skills and subsequently fail to embrace professional development opportunities that would enhance inclusive practices (McGihie–Richmond et al., 2013).

Poor collaboration and communication between health care providers and educators as well as between health care providers and family members about how a child's disability affects school participation, and corresponding strategies to support participation and development, also are problematic (Malti & Noam, 2008; Phelan & Ng, 2015; Sidiqua & Janus, 2017; Spann, Kohler, & Soenksen, 2003). As a result, educators lack the knowledge about the student's challenges and therefore are unable to inclusively meet the student's academic and social needs. Since educators are not able to meet these students' needs, they may refer students who have special educational needs to SHSS for assessment, services, and recommendations, which in turn, result in lengthy waitlists (Deloitte & Touche, 2010). Furthermore, educators' inclusive philosophy, funding for additional educational supports, and insufficient training are just a few additional barriers that contribute to the lack of knowledge and skill to enact successful inclusion. Despite these challenges, knowledge about health care and disability continues to advance and there is a greater propensity for educators to identify and accommodate all learning needs.

Over the years, the Ministries of Education and Health have concomitantly developed policies advocating for, and improving student access to, health care services in schools. This has resulted in a greater awareness about the importance health care has for academic achievement and subsequently increased collaboration between educators, families and health care providers. In 2009, SHSS was examined for access and equity as well as coordination and quality of health care service delivery (Deloitte & Touche, 2010). Wait times, service delivery models, and collaborative planning across sectors were found to be challenging. More specifically, there was an identified gap in coordination and collaboration between: the provider and educator; the provider, educator, and family; and the provider and number of school visits. In the report's recommendations, it was suggested that access guidelines and tools to guide service delivery would be developed, initiatives generated for proactive service planning, and alternative models of service delivery created to reduce wait times (Deloitte & Touche, 2010). Waitlist times continue to remain lengthy with over 37,000 students waiting for assessments placement, and individual education plans (IEPs) with thousands of unidentified students who are not on a wait list due to waitlist restrictions (People for Education, 2017). In 2018, 93% of elementary and 79% of secondary school principals reported they had students on waitlists with approximately half of the school principals (58% of elementary and 48% secondary) recommending students with special education needs not attend school for the full day due to insufficient support (People for Education, 2018). The demand for support to address health care needs and growing waitlists restricts the number of referrals and students permitted on the waitlists, in turn creating a greater number of behavioural and academic challenges in the classroom and greater need

for itinerant support or request for self–contained classrooms (Deloitte & Touche, 2010; People for Education, 2017).

The Comprehensive School Health Framework acknowledges the interdependence of health care and education for student success (The Pan-Canadian Joint Consortium on School Health, 2012); yet the integration of health care providers in schools needs to be enhanced to support student outcomes. The collaboration between health care providers, educators, and families can enable early identification as well as reduce wait times and prevent secondary socio-emotional problems (Missiuna et al., 2017). The expertise of school health professionals and school staff with special education training might also be utilized to support educators when integrating students into classrooms and identifying instructional strategies that facilitate equity and inclusive education. Therefore, identifying methods of professional development that utilize the knowledge and skills of individuals trained in childhood disability, health care and/or special education is necessary to bridge the gap between health care and education.

Job–embedded Coaching as a Method of Professional Development

Without appropriate knowledge and skill, engaging in inclusive practice is arduous for educators (Amr, Al–Natour, Al–Abdallat, & Alkhamra, 2016; Berhanu, 2011; Lykourgioti, 2017; McGhie–Richmond, Irvine, Loreman, Lea Cizman, & Lupart, 2013; Naraian, 2014; Pivik, McComas, & LaFlame, 2002; Sokal & Katz, 2015; Winzer & Mazurek, 2011). In the consultative approach, the professional development requirements set out by School Health Support Services (SHSS) recommends stakeholders are "updated" (p.82) on leading practices in service delivery (Deloitte & Touche, 2010). Without guidelines about how updates in leading practices occur, it is unclear the

amount, type, or quality of professional development stakeholders (and in turn educators) are receiving, underscoring the ineffectiveness of the consultative approach. Furthermore, traditional professional development is insufficient to support educators' learning needs (Centre for Public Education, 2013; Knight, 2014). The most prevalent but not the best, traditional, single–day professional development training is often supported by the school board, but by nature cannot provide the cooperative experiential component for enhanced learning that in–situ (within one's vocational environment) training offers (Centre for Public Education, 2013; Dunst, Bruder, & Hamby, 2015; Knight, 2014). Professional development workshops often involve the passive transmission of knowledge and improve educator learning about evidence–based inclusive practices for children with disabilities, yet lacks the active collaboration and reflection that enriches the understanding and application of knowledge (Centre for Public Education, 2013; Darling–Hammond, Wei, Andree, & Richardson, 2009). One–day workshops become more about convincing educators why and how to change practice causing implementation challenges (Dunst et al., 2015).

The poor design of traditional professional development leaves educators overwhelmed, frustrated, disappointed and resistant to change (Knight, 2007). Additional challenges adopting knowledge into practice exist for reasons that include: attitudes and beliefs that teachers and school leaders have about children with disabilities and about related instructional approaches; educator confidence; experience and willingness to change existing practices; as well as the school culture and context (Dixon, Yssel, McConnell, & Hardin, 2014; Guskey, 2002a; Johnson, 2006; Whitworth & Chiu, 2015; Woodbury, & Gess-Newsome, 2002).

To resolve the problems in educator ability to support students inclusively, job–embedded coaching has gained preference and popularity as a method of professional development by researchers and policy makers alike (Bay, 2014; Buly & Coskie, 2006; Collett, 2012; Cornet, & Knight 2009; Gallucci, Van Lare, Yoon, & Boatright, 2010; Gore, 2014; Hooker, 2013; Knight, 2016; Kretlow & Barthalomew, 2010; Onchwari & Keegwe, 2008; Sailors & Shanklin; Zan & Donegan–Ritter, 2014). In job–embedded coaching, a professional 'expert' in a domain (e.g., special education, literacy, arts, science, etc.) works collaboratively alongside educators, scaffolding instructional capacity by sharing and implementing ideas, providing affirmative feedback, and reflecting on change (Collett 2012; Knight & van Nieuwerburgh, 2012; Kretlow & Bartholemew, 2010). This model of professional development is ideal for creating a change towards inclusive practice as it provides educators with the opportunity to question, reflect, and experience student outcomes as the by-product of their good teaching practice. Job–embedded coaching, professional learning communities, and alternative long–term professional development provide enriched learning that advances educator knowledge, skill, confidence, collegial support, and teaching practice (Brock & Carter, 2013; Collet, 2012; Jenkins & Yoshimura, 2010).

In education, there are five common types of coaching: executive, coactive, cognitive, literacy, and instructional. For the purposes of this thesis, executive and instructional coaching will be defined as they pertain to the coaching approaches used in the research cases being examined. Executive coaching can be described as a method of coaching to advance skills or competence in an area through the process of identifying goals, addressing and solving problems, and collaborating in a healthy partnership

(Goldsmith, Lyons, & Freas, 2000; Knight 2007). In comparison, instructional coaching encompasses the skill set of an executive coach, but coaches are assigned to assist with professional development in schools on a full–time basis. Instructional coaches embody characteristics (e.g., communication, empathy, listening) for collaboratively (through dialogue, observation, and modelling) developing and maintaining relationships and are skilled in evidence–based strategies to enhance classroom practice (e.g., content development, classroom management, instructional practice, assessment) while encouraging teacher reflection (Knight 2007, p13).

Job–embedded coaching has been successfully and favourably used in a variety of contexts to build professional capacity and its definition is largely context and discipline specific (Cornett & Knight, 2009; Croft, Coggshall, Dolan, Powers & Killion, 2010). Notwithstanding, functions of coaching include: collaboration, problem–solving, questioning, providing feedback, prompting/guiding, and reflection in context to develop or gain perspective on a topic as well as for fidelity of intervention implementation (Akin, 2016; Bean, Draper, Hall, Vandermolen, Zigmond, 2010). Job–embedded coaching improves an individual's confidence, skills, and professional practice (Akin, 2016; Bay, 2014). Compared to stand–alone training workshops, job–embedded coaching demonstrated a greater success for advancing paraprofessional instructional working in schools (Brock & Carter, 2013). Similarly, coaching has improved educators' instructional ability when used to complement in–service training (Kretlow, Wood, & Cooke, 2011). This suggests that in–service education alone is not enough to ensure application of methods into practice. Further, coaching has been validated as an effective professional development method to advance teacher knowledge and instructional ability

to support students with autism as well as improve students' classroom engagement (Gore, 2014). A review of coaching literature over two decades identified that coaching is a more successful method of improving educators' ability to accurately implement alternative teaching practices with sustainability, and not only improves student achievement, but also addresses educators' learning needs (Kretlow & Bartholemew, 2010). Coaching is a unique behaviourist approach to professional development, built on developing relationships, founded on trust and communication (Knight, 2007, L'Allier, Elish–Piper, & Bean, 2010). In this model, the educator is experientially engaged, which facilitates deep learning and skill attainment. To make educators exceptional teachers, praise, support and encouragement are offered as a reward to reinforce confidence and skills (Braungart, Braungart, & Gramet, 2011; Knight & van Nieuwerburgh, 2012; Kretlow & Bartholemew, 2010).

Job–embedded coaching content.

Building educator knowledge and capacity to adjust instructional approaches and create a classroom environment that meets the needs of all learners is imperative. Three theoretical and practical frameworks commonly used in the classroom to support students' academic and social success are: Differentiated Instruction (DI), Universal Design for Learning (UDL) and Response to Intervention (RTI). Differentiated instruction is an approach to teaching and learning that focuses on altering instructional practice to meet a student's diverse strengths and needs (Tomlinson, 2001). To teach the same material to all students using DI, an educator may pair or group students based on ability, utilize silent reading for some and audio books for others, and allow auditory learners to provide a verbal report rather than a written report or presentation for visual

learners. Universal design for learning is complimentary to DI and is structured around identifying barriers that limit access to the materials and resources to meet the curriculum expectations (Rose & Meyer, 2002). Universal design for learning, for example, is an inclusionary approach to teaching that empowers educators to identify environmental barriers which limit children's access to materials and resources necessary for meeting curricular expectations (Rose & Meyer, 2002). Once identified, educators may differentiate instruction to change the way curriculum is delivered to enhance students' engagement in learning, acquisition of knowledge, and alternative assessment modalities that meet needs of all students (Meyer, Rose & Gordon, 2014; Tomlinson, 2001). For example, children who experience fine motor difficulties may be provided with specialized scissors, pencil grips or shortened crayons to facilitate the writing process. When required to express knowledge, a kinaesthetic matching activity may be more appropriate than providing a written response. Finally, RTI is a tiered approach to supporting students with individualized instructional practice as the last option to providing education (Grosche & Volpe, 2013; Mcintosh et al., 2011). In RTI, a student's behavioural competence and academic outcomes (e.g., behavioural observations, classroom performance, test scores, etc.) influence an educator's decision to modify instructional approach and is based on three tiers. In the first tier, students are monitored and provided support as needed. For example, if a student's behavioural or academic outcomes (e.g., poor math test score) indicates he or she requires increased support, a plan to support that student in an inclusive way using UDL can be generated at the class level and in collaboration with other members of the school community. If the student continues to exhibit ongoing challenges in the subject, the second tier is employed and

consists of the implementation of small group activities and ongoing observation. Finally, if after evaluation at the second tier, the student continues to struggle, the final tier of individual support is provided with individualized strategies created based on student need (Grosche & Volpe, 2013; Mcintosh et al., 2011).

While UDL and RTI facilitate inclusion (e.g., Grosche & Volpe, 2013; Howery, McClellan, & Pedersen-Bayus, 2013; Missiuna et al., 2012), educators struggle to enact these approaches due to lack of adequate training, resources, and experience teaching children with disabilities. Hence, children with identified disabilities may be placed in segregated classrooms and students struggling in the general classroom are identified and referred by educators to a health care professional, including occupational therapists through SHSS. After some time on a wait–list, the health care provider will assess, may provide some direct service, and will recommend strategies that may improve learning outcomes. This service delivery model suggests that inclusive education is a multi-disciplinary and collaborative effort that extends beyond addressing the needs of children with an identified disability or pre–existing condition to those who have not yet been diagnosed or identified with an exceptional need.

Despite its effectiveness, little is known about how job–embedded coaching works in relation to contextual factors, and thus, it can be challenging to implement optimally from school-to-school. While research has identified important factors of job-embedded coaching that contribute to improved instructional practice (e.g., operational and organizational), how these factors transfer or differ from one context to another is not well understood (Guskey, 2002; Hahn & Lester, 2012; Van der Klink, Kools, Avissar, White, Sakata, 2016). Therefore, opportunities to build upon the experiences of other

schools are lost. Evidence from both health care and education recognize that creating organizational change with the goal of inclusive practice requires involving decision makers. For example, decision makers responsible for executing a policy or a new method of service delivery are instrumental in setting the organizational tone (e.g., assigning roles, approach to service delivery, communication, funding, etc.), and the systematic variables (e.g., stakeholder selection, goals, vision and anticipated outcomes) during an organizational change process (Camden et al., 2015; King & Bouchard, 2011; Segeren & Kutsyuruba, 2012; Winzer & Mazurek, 2011). The adoption of change through job–embedded coaching at the school–level is dependent on the following factors: (1) stakeholders who are decision makers within and beyond each school, (2) school culture, (3) stakeholder belief system about a policy, (4) stakeholder beliefs about pedagogy and practice, or (5) an associated intervention (Amr et al., 2016; Berhanu, 2011; Ellis & Alexrod, 2016; Jordan, Glenn, & McGhie–Richmond, 2010; Lykourgiti, 2017; McGhie–Richmond et al., 2013; Pivik et al., 2002). These contextual variables in turn play a role in the coach–educator relationship with respect to goals, expertise, and educator readiness to learn (Gibson, 2005; Kennedy & Stewart, 2011; Stelter, 2007). Further to these factors, decision–makers have some authority over controlling operational variables related to organizational change. Resources (e.g., number of coaches), time (spent on training, coaching, planning, etc.), funding, supplies (e.g., technology, training materials), access to classrooms and learning environments impact the coaching partnership and are influenced by both decision–makers and the contextual parameters for creating change.

The Current Research

It is well-accepted in the coaching literature that organizational and operational factors are essential for effective coaching relationships and outcomes (Kuijpers, Houtveen, & Wubbels, 2007; Gallucci et al., 2010; Knight, 2011). However, characteristics beyond the organizational and operational variables, such as those related to context (e.g., the learner, the coach, communities), may be responsible for facilitating change since the versatility of coaching as an intervention to build educator capacity is applicable to changing contexts (Harn, Parisim, & Stookmiller, 2013). The current research describes and compares two implementation projects that endeavoured to address childhood disability and improve teaching practice within Ontario elementary and secondary schools. Both projects (one using **a health care approach** to disability and the other **an education approach**) used job–embedded coaching as an intervention to build educator capacity about DI, UDL, and RTI to improve access to support as well as meet students' needs. The first project, Partnering for Change (P4C), which follows the **healthcare model**, is described in Chapter Four, and outlines in detail how an Ontario research team implemented an innovative service delivery model to transform how occupational therapy services were delivered in schools. In P4C, the role of the occupational therapist was redefined to that of a job–embedded coach who worked in the schools to build educator capacity and meet students' needs. Chapter Five describes how researchers studied service delivery changes in a local Ontario district school board (DSB). Situated in **the education model, DSB** educators were recruited and specifically hired for the role of a job–embedded coach to work alongside educators in facilitating inclusion for children with disabilities. Chapters Six and Seven identify and describe the

characteristics of job-embedded coaching that were important for its outcomes and does so by critically comparing and contrasting how P4C and DSB implemented coaching to build capacity in the school system.

A realist evaluation framework was used to examine both the educational and health care models. A realist evaluation framework examines what it is about a particular program that makes it work, for whom it works, how it works, and why (Pawson & Tilley, 2004; described with greater detail in chapter three). The subsequent chapters outline the realist framework in detail, and examine *who*, *how*, *what*, and *why* through the cases of P4C and DSB. The impact of this knowledge has the potential to inform the scaling up of job–embedded coaching and contribute to the knowledge base of professional development in the context of inclusive education, rehabilitation, and childhood disability.

CHAPTER THREE: THEORETICAL FRAMEWORK AND METHODOLOGY

This chapter describes the theoretical lens and research methodology underlying chapters four, five, and six. Chapters four (P4C) and five (DSB) describe each case in detail to understand the contextual features and outcomes, while chapter six compares these features to understand the relationships. The realist evaluation framework (Pawson & Tilly, 1997) was used to guide this case study design, and served as a frame of reference for understanding relationships between context and outcome for the two research projects being compared in Chapter six. This chapter defines and outlines the realist evaluation framework, case study design, and related methodological decisions. The corresponding methodology for chapters four, five, and six will then be described and include: sampling and recruitment, data collection, and data analysis for each chapter. This chapter concludes with describing the measures taken to enhance research quality. Figures 2, 3, and 4 illustrate the methodological decisions for the collective case comparison described later in this chapter (p. 32).

Theoretical Lens: Realist Evaluation Framework

The realist evaluation framework allows the direct observation of the **context, mechanisms, and outcomes (CMO)** within the parameters in which a phenomenon exists. More specifically, the conditions in which a phenomenon exists are referred to as *context*, whereas the non–visible variables (e.g., social) and/or processes responsible for outcomes are referred to as *mechanisms* (Kazi, 2003; Salter & Kothari, 2014; Wong et al., 2012). In realist evaluation, outcomes can be defined as the *change* experienced as a result of the mechanisms introduced in a particular context. In a simplistic example using

a realist evaluation, consider a researcher's desire to understand why Lunch and Learns (phenomena of interest) about self-care elicited hospital staff participation in a 5–minute guided meditation during lunch break (outcome). To better understand staff engagement in self–care practice requires understanding the context (e.g., who facilitated and attended the Lunch and Learn? How was the Lunch and Learn delivered? What are the beliefs of the individuals and hospital staff involved?). A detailed evaluation of context might reveal characteristics (mechanisms) about the Lunch and Learn experience that resonated with staff (e.g., persuasiveness of facilitator) and influenced participation. In short, the realist framework improves the understanding of what happens and to whom, given the conditions of the phenomena. The realist framework is helpful for understanding the world from a social perspective and considers the environment, culture, and lens an individual uniquely brings to a social phenomena or event (Wong, Greenhalgh, Westhorp, & Pawson, 2012). The ontology (or the nature of reality) exists in identifying the mechanisms and is founded in the understanding of context in great detail. The epistemology (ways of knowing that reality) is subjective based to the researcher's interpretation of evidence. Appendix A outlines the ontological and epistemological differences for positivist/post-positivist, realist, constructivist, interpretivist, and social constructivist paradigms as well as indicates where the respective case study methodologists' perspectives are situated within those paradigms. Greenhalgh et al. (2009) stated, "that if you accept a realist evaluation, you (and whoever is sponsoring the evaluation) must also accept its constructivist ontology and interpretivist epistemology" (p. 414). Therefore, the framework for this thesis aligns best with Robert Stake's approach to case study research (described in greater detail in p. 31-33) as it requires the

researcher to critically examine a phenomena in its context and construct knowledge about it. In addition, the realist framework can be used to evaluate, inform, and move research and implementation forward. This framework does so by prompting the researcher to consider why and how the variables or processes contribute to particular outcomes as well as to explain the importance of those variables in a given context (Pawson & Tilly, 1997).

The realist evaluation framework was used in this thesis to understand the CMO relationships and to inform when, for whom, how, and why job-embedded coaching worked as a method of professional development in Partnering for Change (P4C) and District School Board (DSB). Partnering for Change and DSB were launched over the same two–year span (2013-2015). They were two unrelated initiatives designed to change service delivery using job–embedded coaching to build educator capacity about DI and UDL. In both cases, a job–embedded coach partnered and worked with an educator(s) on a regular basis in the classroom. In P4C the coach was an OT, while in DSB the coach was a teacher with training in special education. In both cases, the coaches worked collaboratively with teachers to change the classroom environment and the delivery of the curriculum to meet the needs of students with disabilities or special needs. The remainder of this chapter will describe the methodology and procedures taken to complete case descriptions and subsequent analysis of CMO relationships.

Case Study Methodology

Contrary to quantitative experimental research, qualitative research methods are used to understand and interpret human experience and perspectives to attain a detailed understanding of a phenomenon or problem, its context, and to explore linkages or

develop a theory (Creswell, 2013). Case study research is a frequently used method of qualitative research to explore 'how' and/or 'why' questions, particularly when the behaviour or context cannot be manipulated, and when the context is an important feature to understanding the phenomenon (Baxter & Jack, 2008; Yin, 2003; Merriam, 1998). For example, one may ask, "what is X and how does variability in context impact X"? Through the interpretation of human experience, artifacts and/or documents, case studies can be descriptive ('what'), exploratory ('what'), explanatory ('how' and 'why') or a combination of the three (Pope & Mays 1995; Yin, 2003). Case study research can be intrinsic or instrumental (Stake, 2003). Intrinsic approaches to case study research are aimed to developing a better understanding of the case, whereas instrumental case study research aims to provide insight to an issue by examining the context in which the issue resides (Stake, 2003). Finally, case study methodology can be used to examine a single and unique case in which a phenomenon exists for revelatory purposes, or to examine multiple–cases (also referred to as collective case studies) (Baxter & Jack, 2008; Creswell, 2013). *Collective–case studies* are fundamentally *multiple–case studies*, and the terminology is used interchangeably in qualitative research. In collective or multiple–case studies, two or more cases are compared to draw relationships and distinctions between or amongst cases (Baxter & Jack, 2008; Creswell, 2013).

Case study methodology allows for critical examination of the conditions or context surrounding the phenomenon (in this instance, the conditions of job–embedded coaching; Creswell, 2013). Case study research is commonly approached from the seminal works of Yin, Merriam, and Stake (Creswell, 2013; Yazan, 2015). The approach of educational psychologist and methodologist, Robert Stake, was selected for the

methodological lens of this research as it complements the realist framework. In the realist framework, an explanation of the mechanisms that underlie phenomena is based on and constructed by, the researcher's subjective analysis and interpretation of data (Pawson & Tilly, 1997). Similarly, Stake (1995) approached case study research from a constructivist perspective and believed that knowledge is constructed rather than discovered. Therefore, he believed knowledge is not confined to a single reality, but rather is dependant on the researcher's experience and contribution. Stake defined case study research as *holistic* (contextually developed, recognizing relationships between the phenomena and context), *empirical* (includes observations by informants), *interpretive* (researchers rely on intuition in research-subject interaction), and *empathetic* (reflecting on experiences of subjects). Adopting Stake's (1995, 2003) approach to case study research, an **instrumental collective–case study design** was selected for this thesis to make comparisons between two instrumental case studies that used job–embedded coaching as an intervention to build educator capacity about strategies to support inclusive education. For the purposes of this thesis, the term 'collective–case study' was selected, as it is consistent with Stake's conceptual framework and terminology. According to Stake (1995), instrumental cases facilitate the understanding of a phenomenon through the exploration of that phenomenon in context to advance knowledge about 'something else'. Using Stake's premise, this collective–case study will facilitate understanding of 'job-embedded coaching' by exploring 'contextual and mechanistic factors' in *two specific instances* so as to advance knowledge about 'building educator capacity' about inclusive practices for children with disabilities or special needs. To facilitate this understanding, Stake endorses the use of collective–case studies (Stake,

1995). To better understand the *two specific instances* that are referred to as cases, chapters four and five will serve as instrumental case descriptions.

In instrumental case studies, case descriptions are created through the categorical aggregation of the data allowing pattern identification when reviewing documents to understand context (Stake, 1995). It is recommended that six data sources including observation be used in case study research (Creswell, 2013). Archival records (e.g., ethics applications, website data), survey data, documents, artifacts, and interviews were used to create the case descriptions. **"**Much of what we cannot observe for ourselves has been or is being observed by others" (Stake, 1995, p. 64). This quote by Stake conveys that informant data is valuable when direct observation is not possible. While the primary researcher did not directly observe job–embedded coaching in context for this thesis, responses from educator interviews served as experiential data that provided information about the optics of job–embedded coaching, or otherwise what coaching *looked like* in the classroom. This experiential data appears in chapters as an educator narrative. Narratives are often used in qualitative research in the form of interpretive descriptions to compliment empirical data (Creswell, 2013). While narrative research unto itself is another approach to qualitative research (Spector–Mersel, 2010), narrative descriptions using informant interview data is condoned by Stake (1995) to enable readers to assimilate a form of vicarious experience and insight into the phenomena.

To illustrate how job–embedded coaches worked with educators in the classroom, a narrative referred to as an *interpretive description* was created based on educator experiences (Thorne, 2016; Thorne, Kirkham & MacDonaled–Emes, 1997). The premise underlying an interpretive description is to create a "coherent conceptual

description that taps thematic patterns and commonalities believed to characterize the phenomenon that is being studied and also accounts for the inevitable individual variations within them" (Thorne, Kirkham, O'Flynn–Magee, 2004). Thorne (2016) describes two findings that contribute to interpretive description: one that conveys an overarching conceptual claim and another that has no conceptual claim, but rather serves to tell a story in and of itself. The purpose for using Thorne's interpretive description was to contribute to the latter and tell a story about the experience of being coached. Crediting the work of Sandelowski (1998, p. 377), Thorne (2016) asserts that findings should be showcased to illustrate the "characters, scene or plot" (p.169). Consistent with Thorne's premise, the interpretive descriptions in chapters four and five provide the reader with a better understanding of the scene, while the remainder of the case description and chapter served to showcase the characters and plot. As described in the second paragraph of the case study methodology (p. 31), the empirical and empathic tenants of case study research according to Stake are illuminated through the adoption of Thorne's interpretive description approach and are illustrated in figure 5. The cases are presented as *descriptive* and *exploratory* based on empirical evidence including informant responses (in the form of an interpretive description) to contribute to the reader's experience of the reality (Stake 1995; Yazan, 2015). With a contextual understanding, relationships between the phenomenon (job–embedded coaching) and context are drawn in chapter six. Chapter six addresses Stake's holistic tenant described on page 30 and is *explanatory*, identifying the linkages associated with case study research and explaining the mechanisms in the CMO relationships of the Realist framework that link context with outcome.

In summary, the realist evaluation framework was adopted to understand the CMO relationships and to inform when, for whom, how, and why job-embedded coaching worked as a method of professional development in P4C and DSB. The collective case study approach was used to comprehensively describe the instrumental cases, using interpretive description within each case as a method of showcasing the delivery of job–embedded coaching. Chapters four and five serve to *describe* and *explore* the 'who', 'how', and 'what', setting the proverbial stage with characters, scene, and plot. Chapter six describes the iterative process of comparing and contrasting the cases to identify 'why' and *explain* the linkages between context and outcome that were important for job–embedded coaching in these cases. The remainder of this chapter will outline the sampling, recruitment and data analysis strategies employed chronologically for each upcoming chapter.

Methodology used for the P4C Case Description (Chapter Four)

Sampling and Recruitment. Criterion sampling was used and refers to the selection of participants based on a criterion they fulfill (Creswell, 2013). The criterion of interest was experience working with a job–embedded coach, which in turn would aid in understanding what job–embedded coaching looked like. Therefore, criterion sampling was used to recruit educators who received job–embedded coaching as a form of professional development. Educators in coaching partnerships were verbally informed by their coach partner about an opportunity to share their experience in a coaching partnership. Coaches provided P4C research coordinators with the contact information of teachers interested in participating. The first author then contacted the teachers via email for participation (Appendix B). To preserve confidentiality, coaches were not informed

which educators participated. Fourteen educators expressed interest about sharing their experiences, and arranged a 20–minute semi-structured telephone interview. All interviews were audio recorded for later analysis. An interview guide can be found in Appendix C.

Data Collection. The case description was created based on data from various sources. The sources included: research ethics applications, documents (e.g., job-posting, meeting minutes), published and unpublished conference proceedings, knowledge dissemination materials and journals, educator interviews, coach focus group interview data, correspondence with the project coordinators, as well as the project's final implementation and evaluation report. Interview data were used to create the interpretive description, while the other listed data sources were used to create the case description.

Data Analysis. An interpretive description of what coaching *looked like* was based on the collective recounts of educator experiences. Educator interview audio recordings were listened to, transcribed and then reviewed by the first author (K.W.) to create the description. Overlapping phrases and themes were identified through the experiential act of listening to audio recordings and questioning (e.g., 'what experience is happening here?'; Thorne, Kirkham & O'Flynn–Magee, 2004). Thorne et al. (2004) describe this active listening process as more informative for identifying patterns than exhaustive line-by-line coding and sorting of transcribed data. This direct interpretation process for analysis is also supported by Stake (Stake, 1995; Yazan, 2015). While listening to and questioning the interview conversations the first author had with the interviewees, pen and paper "concept maps" were created based on insights evoked about: the problem coaching addressed, the coaches' role in building capacity, the

coaches' role in the partnership and the impression or essence job–embedded coaching left on educators. The aforementioned concepts then served as the structure for which findings were presented. Several subthemes and themes were evoked (described on p. 56 in chapter four) during the analysis process. Based on the themes and order of insights described above, overlapping phrases and patterns in responses were aggregated to retell educators' experiences, using quotes as examples to compliment the description (Appendix D serves as an example to this process). In doing so, a pseudonym was created to portray the events as one educator's experience. For thoroughness in ensuring the essence of the context was captured in the case description, the remainder of the case description was written after the case comparison data analysis (Chapter 6).

Methodology used for the DSB Case Description (Chapter Five)

Sampling and Recruitment. Similar to chapter four, educators in coaching partnerships were informed by their coach partner via email about an opportunity to share their experience in a coaching partnership (Appendix B). For confidentiality, coaches were not aware whether educators chose to participate or not. Analogous to Chapter Four, criterion sampling was used. Seven educators expressed interest in sharing their experiences and contacted the principal researcher via email and scheduled a 20–minute semi-structured telephone interview (see Appendix C for interview guide). Three of the seven educators participated in person, at their request, while the remaining four participated via telephone. All interviews were audio recorded for later analysis.

Data Collection. Similar to the data collection procedures described above for chapter four, the case description for Chapter Five was created based on data from various sources. The sources included: research ethics applications, information from the

school board's website, school board newsletters, documents (e.g., job-posting, meeting minutes), correspondence with the school board's administrator and coach coordinators, published and unpublished conference proceedings, knowledge dissemination materials and journals, educator interviews, as well as coach focus group interview data. Interpretive descriptions were created based on interview data while the additional data sources contributed to the remaining case description.

Data Analysis. As identified in the data analysis for chapter four, interpretive descriptions for chapter five also were based on the collective recounts of educator experiences in each case. Educator interview data were transcribed and reviewed by the first author (K.W.). The data analysis section for Chapter four served as a template for Chapter five. Listening to audio recordings for pattern identification revealed overlapping phrases and themes, as described in data analysis for chapter four. Pen and paper concept maps were created based on insights evoked about: the problem coaching addressed, the coaches' role in building capacity, the coaches' role in the partnership, and the impression or essence job–embedded coaching left on educators. The aforementioned concepts also served as the structure for which findings were presented. Comparable to the data analysis for Chapter four, several subthemes and themes were evoked (as described on 73 in Chapter five). Based on those themes and insights, response patterns were aggregated to retell educators' experiences, weaving in quotes to support the description (see Appendix D for example). As in chapter four, a pseudonym was created to portray the events as one educator's experience. For thoroughness in ensuring the essence of the context was captured in the case description, the remainder of the case description was written after the case comparison data analysis (Chapter 6).

The remainder of the case description was written after the case comparison data analysis (Chapter 6) and is based on information gathered from the aforementioned data sources.

Methodology used for the Collective Case Comparison (Chapter Six)

Sampling and Recruitment. For the purpose of comparison, a unique–case selection was used to determine cases (Stake, 1988). Stake defines this case selection as a form of criterion sampling in which an attribute is inherent to the population (e.g., an innovative or exceptional program). P4C and DSB were unique in delivering job–embedded coaching to develop educator capacity about the impact disability or special needs have on achievement and/or student outcome; as well as how to successfully support those students using universal design for learning and differentiated instruction. P4C and DSB also may be considered as an opportunistic sample given that the first author was permitted the opportunity or flexibility to explore new research questions in two existing research projects for the purposes of moving knowledge forward (Creswell, 2013; Patton, 1990).

Data Collection. The data collected to create the case descriptions for chapters four and five served as the data for comparison in Chapter six (see data collection on pages 35 and 37).

Data Analysis. Stake's methodological approach to instrumental case study research was used to aggregate data that informed context into categories, which served as a structure to compare and identify patterns amongst various data sources for each case. The first author (K.W.) determined categories with the principal investigator of P4C (C.M.) based on overlapping concepts for both research projects, respectively. These

categories are consistent with contextual conditions described by Pawson (2013) and include: institutional, conceptual, financial, environmental, stakeholder and partnership as well as procedural. Then, information to inform each category was extracted from the data collected. This process led to the emergence of subcategories within each category. The left box in Figure 2 illustrates these categories and subcategories. For the *institutional* category, the mission and vision of the institutions involved, mission and vision that project drivers had for the respective projects, and the mission and visions of the organizational partnerships emerged as subcategories. For the *conceptual* category, theoretical frameworks, project description, research goals, definition of coaching, anticipated indicators of success, and questionnaire data as measures of that success—were emergent subcategories. The *financial* category considered the funding used to support the service delivery in both cases. Implementation communities and implementation schools served as *environmental* categories. The *stakeholder and partnership* category encompassed: implementation team, partnership team members, key players, coaches, educator partners as well as students and caregivers. Finally, the *procedural* category included the rationale for intervention, implementation, hiring a coach, coach training and role, and use of research data. Then, information for the units of analysis for P4C and DSB data comparison (categories and subcategories) were extracted verbatim from the documents described in data collection. The verbatim descriptions were entered into a table (via Microsoft Word) for each project beside the respective unit of analysis (category) for comparison. This table is referred to as an *organizational logic model* (and is described in detail below; see Appendix E for a schematic template).

Once the table was completely filled, the written descriptions for each unit of analysis were compared for similarities and differences. Similarities and differences were coded using open coding. Open coding refers to "the process of breaking down, examining, comparing, conceptualizing, and categorizing data" (Strauss & Corbin, 1990, p. 61). For example, based on P4C's and DSB's description of coaching (Appendix D) the following codes were generated: collaboration, expertise, problem solve, active learning, and capacity building. Once codes were generated for all units of analysis, a series of overlapping and fragmented codes existed. At this time, "similar" codes were categorized into themes. 'Expertise' used in the earlier example was paired with another code later identified in another category as 'regulated professional'. These two codes were subsequently grouped together and categorized as 'professional training'. This process of categorizing codes and making connections between categories/themes is referred to as axial coding and provides insight to a context or phenomena (Strauss & Corbin, 1990). Axial coding is typically used in grounded theory research; however, this analysis strategy was borrowed as it lends itself well to analysing information from a variety of data sources (Saldana, 2009). Axial coding procedurally also works well with generating groups of themes during retroductive (side-by-side comparison) analysis. The final codes that were later organized into concepts and themes were used to create an understanding about the mechanisms or processes that influenced job–embedded coaching outcomes. The organizational logic model and this analysis process in turn facilitated a comprehensive understanding of context (C) and relationships between context, mechanisms (M), and outcome (O) forming CMO relationships (see the middle and left boxes of Figure 2). This analysis process was the first step in the research process

(prior to chapters four and five), and therefore also informed the written case descriptions that were created ad hoc.

Organizational Logic Model. The organizational logic model described above aligns with the selected theoretical framework (see Appendix E for schematic template) and was used to organize and compare data. Using the realist framework to explore the context of each intervention and to identify common mechanisms associated with outcomes, an organizational logic model was created to facilitate analysis between categories. Stake (2003) subscribes the use of organizational logic models as an analytical technique for pattern matching and to trace events over time for chronological sequence. Organizational logic models are often used in program development and evaluation to visually map out a program or project. Logic models examine the parameters of the program to determine, describe, or tell a story about how and why a program will work (McLaughlin & Jordan, 1999). To provide the interpretive description, program inputs (e.g., variables related to goals, planning, and resources) and outputs (e.g., activities or strategies) are explored in detail (Kaplan & Garrett, 2005; McLaughlin & Jordan, 1999; Shakman & Rodriguez, 2015; Stake, 2003). An organizational logic model as a methodological approach facilitated the creation of a visual map, permitting retroductive analysis of P4C and DSB on every contextual variable of interest (e.g., theoretical framework, procedural and administrative decisions, etc.) from research inception to research outcomes (see Figure 2). (Danermark, Ekström, Jakobson, & Karlsson, 2001; Kovács & Spens, 2005). Retroductive analysis was used to identify the underlying mechanisms of job-embedded coaching in two independent research cases to build educator capacity for inclusive teaching practice.

CMO relationships were identified to understand the variables, referred to as mechanisms, integral for successful outcomes in each case. In doing so, the following context and outcome categories were created: institutional, conceptual, financial, environmental, stakeholder and partnership, procedural, student, coach, educator, and service delivery. Then, artefacts and data from both research projects were classified by category (with subcategories for comparison) to create an organizational logic model sequencing the contextual variables, events, and timelines involved for program implementation and outcome in each case. Once created, words, phrases, and ideas were coded to identify patterns, similarities, and differences between projects across categories using retroductive analysis. This process allowed for the identification of mechanisms associated with implementation and outcomes (mechanisms are described in Chapter six but also appear in the middle box of Figures 2, 3, and 4).

Omitted Units of Analysis

Using deductive reasoning, several units of analysis were omitted. Figure 3 illustrates this process. The following section provides justification for the decisions made. Coach training and role is a contextual affordance that initially belonged under the omitted contextual category named ‘Procedural’ as it related to the procedural decisions of implementing service delivery. However, coach role and training is a by–product of the contextual affordances (i.e., stakeholders) and very much informed by project driver and community mechanisms. The ‘procedural’ category can be represented in the implementation variables and procedural decisions associated with project driver mechanisms. Therefore, coach role and training was moved to an outcome of implementing service delivery change and ultimately removed from the outcomes

because its relevance was too broad for the scope of the reported findings (see context as well as implementation & outcome boxes of Figure 3).

Institutional (C_1), financial (C_3), environmental (C_4) and stakeholder (C_5) affordances were foundational to the conceptual and procedural decisions P4C and DSB project drivers made. Therefore, the conceptual and procedural categories (formerly C_2 and C_6 in Figure 3) and corresponding nine units of analysis were excluded from the chapter. For instance, the conceptual frameworks project drivers selected to inform of job–embedded coaching and necessary protocols for executing the projects (e.g., ethical requirements) were context dependent (and based on the institutional affordance). Figure 4 illustrates the final CMO map.

Methods to Enhance Research Quality

Ethical considerations. Research ethics clearance was received from McMaster University (REB# 13–022), Brock University (REB# 13–042), and partnering school boards. To maintain educator confidentiality, all interview data were alphanumerically coded to preserve anonymity. Participation in interviews was voluntary and all participants had the opportunity to decline involvement without penalization. All audio recordings were also alphanumerically coded, saved, and password protected and backed up on an external drive.

Rigour

In qualitative research where the researcher is the instrument of measurement, assessing the quality of research is more complicated. In the most basic sense of the word, rigour is understood as the reliability and validity of research and determining rigour is largely based on the selected methodological approach. In qualitative research,

rigour can be referred to as dependability (reliability), transferability (external validity) and credibility (internal validity) (Davies & Dodd, 2002; Lincoln & Guba, 1985).

Dependability. Stake (1995) emphasizes an in-depth analysis to provide a comprehensive understanding of the case's context. In doing so, caution was taken to investigate all aspects of those parameters utilizing a variety of published, unpublished and informant resources for both cases. Records of inquiry, activities and insights were kept throughout the research and learning processes. Measuring the construct of neutrality, referred to as conformability (or objectivity in quantitative terms), could not be adhered to fully. As case study research depends on the researcher's experiences and interaction with the research to construct knowledge and provide the reader with a mental heuristic of each case, researcher 'biases' could not be eliminated completely (Stake, 1995). However, the researcher's background, knowledge, perspectives and interaction with the data served to enhance authenticity.

Dependability and Transferability. *Triangulation***.** Data, investigator and theory triangulation of data are of essence when adopting Stake's (1995; 2003) approach to case study research. For data triangulation, artefacts were collected from various platforms and sources for applicability of information obtained. Similarly, co–investigating authors and coach coordinator had an opportunity to review case descriptions for accuracy and to ensure validity with respect to the described procedures and interpretation of service delivery. A research colleague (M.S.) at Brock University's Research in Advocacy and Inclusion lab (RAIL) reviewed recorded interviews and concept maps to validate the experiences and subsequent descriptions. Due to the political and labour unrest influencing informant participation and contact, member checks were not completed and

this is a recognized methodological limitation as well as limitation to opportunistic case study research. The use of document review and interview improves the confidence in interpretation and validates that methodological triangulation was achieved. Finally, theoretical triangulation was achieved when investigators (and in this case overseeing committee members) who are closely involved in the respective projects, approach each case with differing experiences and theoretical viewpoints and can describe or identify with the case in a reminiscent way.

Role of the Researcher. In qualitative research, the researcher's role is to act as the instrument for data collection. As the primary investigating researcher, I am neither a teacher nor school health professional by training. Therefore any preconceptions about the problem or experiences that may otherwise influence the research process were less problematic. Notwithstanding this, my personal experiences in both contexts are influential in my research and perspectives. Therefore, a journal was maintained tracking decisions, thoughts, reflections, insights and reactions to maintain sight of how researcher experience or expectations contributed to interpretation and findings. Maintaining a reflective journal is important in the qualitative research process and also improves trustworthiness as the researcher's characteristics, experiences and role influence how he or she engages with the data (Creswell, 2013; Krefting, 1991; Ng, 2012). Documenting my own thoughts, feelings, and insights throughout the research and inquiry process increased my awareness of any biases with which I approached both research and knowledge construction.

CHAPTER FOUR: WHO, HOW, AND WHAT? A DETAILED CASE DESCRIPTION OF P4C

To illustrate and identify the context, mechanism, and outcome (CMO) relationships, comparing both contexts is necessary to provide an understanding about the conditions (context) in which the phenomenon (job–embedded coaching) exists. To compare both contexts, data from various sources were collected, aggregated and analyzed using a collective case–study design as per the methods described in chapter three (p. 34–38). Prior to reviewing the results of this collective–case comparison and data analysis (Chapter six), it is important for the reader to develop an understanding and appreciation of each case (i.e., research initiative that implemented coaching) and the contexts in which job–embedded coaching was delivered. Therefore, using the data (e.g., administrative documents, interview data, final report and conference proceedings; p. 34-38) Chapters four and five are detailed descriptions of Partnering for Change (P4C) and District School Board (DSB) projects, respectively. These case descriptions serve to describe and illustrate the contexts and outcomes, whereas Chapter six critically compares and contrasts (using an organizational logic model) P4C and DSB to determine the mechanisms that influence job–embedded coaching. This chapter describes P4C and specifically: (1) who was involved in P4C (e.g., stakeholders); (2) how coaching was implemented and studied (e.g., rationale, goals, purpose, coach training and selection, timeline, etc.); (3) how coaching was delivered and what it *looked like* (e.g., via educator experience); and (4) what happened (outcomes).

Who was involved in and represents P4C?

Occupational therapy research–scientists and champions in the field of developmental coordination disorder (DCD) at McMaster University collaborated with

CanChild Centre for Childhood Disability Research and with a regional Community Care Access Centre (CCAC) CEO to develop the Partnering for Change (P4C) research project (Missiuna et al., 2012; Missiuna & Hecimovich, 2015). The initiative, propelled by Participatory Action Research, Implementation Science, Knowledge-to-Action Research and Evidence-Based Practice frameworks (Campbell, Camden & Missiuna, 2016; Campbell, Missiuna, Rivard, & Pollock, 2012; Missiuna et al., 2012;), was designed to determine whether changing the occupational therapy service delivery model would improve identification and access to support for students with DCD and related special needs in the general classroom, where inclusive education takes place (Missiuna & Hecimovich, 2015). Developmental coordination disorder is a motor skills disorder that is not explained by an intellectual or neurological condition, has an early developmental onset, and significantly interferes with activities of daily living (e.g., in personal care, social, academic, and leisure domains). Children with DCD also commonly present with attention challenges (American Psychiatric Association, 2013) and receive education in the general classroom unless otherwise specified by additional health care or learning challenges.

The research team envisioned strengthening collaborations between occupational therapists (OTs) and educators primarily to enhance instructional skills and explore the process of job–embedded coaching, but also to identify the necessary skills for OTs to deliver services in this capacity (Missiuna et al., 2012). From 2009–2011, a P4C pilot project was carried out as a demonstration study in select elementary schools in southern Ontario. This service delivery model addressed student need and improved collaboration between OTs and educators through knowledge translation in context to build educator

capacity about DCD (Missiuna et al., 2012). This pilot project precipitated the launch of a more extensive research initiative. In 2011, the lead project drivers and research team developed a proposal to expand P4C, using the success of the existing model as a launching pad. The proposal was well received by the Ministry of Health and Long-Term Care (MOHLTC), and substantial funding was granted for a two–year (2013-2015) implementation and evaluation project. At that time, a steering committee (seven members including representation from CCACs, the MOHLTC, the Ministry of Education, and project representatives) and working group (six CCAC members and two project representatives, respectively) were formed to methodically guide the execution of the project. In doing so, presentations and working meetings were held with participating CCACs and school boards. Letters were sent to the families of all children in participating schools, including those who were not on existing waitlists for service.

Students within the participating regions and schools who were waitlisted for services were removed from the waitlists to receive occupational therapy services under the new service delivery model. Occupational therapists were reassigned from their conventional role (assessing and providing one-on-one therapeutic support to children), to a more contemporary one as a coach to educators. This re-defined OT role was designed to improve a child's occupational functioning as a student, minimize wait lists, enable early identification, serve a greater population, prevent secondary sequelae for students; as well, it encouraged collaborative–, reflective–, and evidence–based practice for both educators and OTs. As a job–embedded *coach*, the OTs collaborated with educators about using alternative teaching techniques (i.e., based on DI, UDL) within an RTI approach who experienced challenges; ultimately, the aim was to provided services

to students in a more timely and consistent manner throughout the school year. The therapist coach worked collaboratively with the child's caregivers and educators to identify barriers to academic and social success; problem-solve; and suggest, implement and follow up with strategies. The remainder of this chapter describes in detail the delivery of the P4C implementation and evaluation project to fully understand the contextual variables involved (Missiuna et al., 2012; Missiuna et al., 2015; Missiuna & Hecimovich, 2015).

Stakeholders. The primary multi-disciplinary research team was situated in *CanChild*, a research centre focused on childhood disability, housed at McMaster University (Hamilton, Ontario). This P4C research team comprised: university faculty members, occupational therapists, speech and language specialists, project managers, a business analyst, a health economist, graduate and undergraduate students, a post-doctoral fellow, media design support, and a statistician (Missiuna & Hecimovich, 2015). The P4C research team also partnered with, and included, experts from other institutions. For example, P4C had an integral research team member with expertise in special education from Brock University (Faculty of Education) in addition to province (i.e., Children's Hospital of Eastern Ontario; University of Ottawa) and nation-wide (i.e., Université de Sherbrooke) collaborators (Missiuna & Hecimovich, 2015). The local team at *CanChild* held regular research meetings and oversaw the delivery of P4C. Partners were invited to attend the research team meetings in person or via teleconference. At the outset of the partnership in 2012, the P4C research team partnered with a regional Community Care Access Centre (CCAC; regional governing funding body for school–based OT services) and jointly applied for, and received, substantial funding from the

Ontario Ministry of Health and Long-Term Care, the Ontario Ministry of Education, and local CCACs. P4C rapidly grew to include collaborators, which included the CCAC director of patient care, CCAC client service managers, and regional CCAC chairs [i.e., CCAC Central West, Hamilton Niagara Haldimand Brant (HNHB), and Toronto Central CCAC]. The local *CanChild* research team situated within McMaster then began to meet with school board superintendents and the Director of Special Education Policy and Programs to discuss roll out and service delivery (C.M., N.P., W.C., L.D., C.D., et al., personal communication, December 18, 2014). Once individual schools became involved, principals, educational assistants, and special education resource teachers (SERTS) became team players (refer to Table 1), and knowledge dissemination activities began about the anticipated benefits P4C would have on student outcomes and teaching practice. Parents and caregivers, the students, the coaches, and the community were also stakeholders (Table 1; Missiuna & Hecimovich, 2015).

Forty Ontario schools (within the catchment of CW and HNHB CCACs) participated in P4C within the Hamilton Wentworth Catholic (10 schools), Peel (20 schools), and Halton District (10 schools) School Boards (Missiuna & Hecimovich, 2015). Geographically, these three boards are situated in urbanized central Ontario with an ethno–culturally diverse population of over 2.2 million people (Statistics Canada, 2013). The boards' superintendent and administrative team, in collaboration with the regional CCACs, selected schools based on student wait–list time for access to OT services and based on priority cases (e.g., students with high level needs who required support) within the boards. Although Toronto District School Board (TDSB) declined the P4C service due to feasibility, Toronto Central CCAC continued to be supportive and had

representation on the P4C Steering Committee (Missiuna & Hecimovich, 2015). Once participating schools were informed, identified, and consented to participate, families were informed about the change in service delivery.

How did P4C implement and study job–embedded coaching?

Program Rationale and Goals. The rationale behind P4C was to build relationships with educators and families to aid their understanding of the child's needs, rather than focusing on changing the child's underlying motor impairments. The four principles of P4C comprise: collaboration via relationship building (with educators and caregivers), capacity building via knowledge translation, coaching the educators and families, and providing support in context (Missiuna et al., 2012; Missiuna & Hecimovich, 2015). These principles underlie the following goals of P4C: to enable early identification of children with special needs, build educator and family capacity, prevent secondary problems (academic, social, developmental, health, etc.), and to promote health, well-being and successful participation (*CanChild*, 2015; Missiuna et al., 2017; Missiuna et al. 2012; Missiuna & Hecimovich, 2015).

Research Purpose and Questions. The purpose of the P4C research project was to replicate the pilot research on a larger scale. Therefore, the role of the OT was redefined to that of an expert job–embedded coach collaborating in context with educators and families to translate knowledge and build instructional capacity and management skills that would address the developmental needs of children with DCD as well as the diverse needs of all students in the classroom. Identifying barriers to implementation, lessons for mobilization, and cost determination were also of interest.

P4C examined the following research questions (Missiuna & Hecimovich, 2015; REB #13-042):

1) Does P4C build capacity amongst teachers, schools and school boards to support children with DCD in the classroom?

2) Does P4C lead to increased sense of competence and satisfaction for parents to support their children with DCD in home/community environments?

3) How many children with DCD were identified at an early age through this service; and how severe are their motor delays, strengths and difficulties, in the classroom and at home?

4) Does P4C improve individual outcomes for children with DCD regarding participation and behaviour?

5) What is the cost of the P4C service and lessons for spread?

Job–embedded coach selection. Service provider organizations circulated a screening tool and identified OT employees who met the criteria to participate as a coach in P4C (Pollock, Dix, Sahagian Whalen, Campbell & Missiuna, 2017). The description included a short candidacy survey surrounding knowledge about DCD as well as details about the P4C model and OT role. Twenty-two OTs were selected and hired for the role of the P4C expert coach (CCAC, MOHLTC, *CanChild*; Screening Tool, 2013; Missiuna & Hecimovich, 2015; Pollock et al., 2017).

Job–embedded coach training. Upon hire, OTs received access to online training modules (refer to Table 2) that were completed weekly (2-hour minimum) for up to 16 weeks. Modules consisted of readings, activities, case scenarios, and discussion topics surrounding DCD, the P4C model, and their new role as coaches in schools. Concomitantly, the research team provided a one–day training workshop to prepare OTs for their new role. The workshop included an introduction to the P4C model, navigating

the school system, documentation, and knowledge translation. An expert peer mentor facilitated ongoing training and provided monthly support (two hours per month) in a group setting to discuss cases, scenarios, ask questions, and receive feedback. The study team also was available to OTs for ongoing support. Refresher training and mentorship manuals were provided at the beginning of the second year to include DI and UDL strategies. OTs participated in two focus groups, and one interview during the duration of the two-year placement. Figure 6 illustrates training in detail (C.M., N.P., D.MC., D.S., L.D., K.W., W.C., C.C., S.B., D.O., personal communication, July 18, 2013; Pollock et al., 2017).

Educator Partner and Family Selection. Educator partners and families were selected within the schools based on need determined by students who were wait–listed for OT service. Initially, OTs worked in the Early Learning Kindergarten Program (ELKP) and first grade classrooms to identify both waitlisted students and those who demonstrated learning challenges not otherwise identified as requiring services. Over the two–year study, the 22 OTs were allocated to work amongst 40 elementary schools (ELKP–grade 8) one day per week. During the study, OTs worked with 246 educators who were invited and volunteered to take part in the coaching partnerships. Consent was obtained from 592 families for children to receive the OT services via the P4C model of service delivery. Of those, 246 families agreed to participate in the research component, which involved the completion of standardized and non–standardized pre- and post-measures by both care givers and children (e.g., surveys, formalized child testing–see description of measures in Table 3; Missiuna & Hecimovich, 2015).

Timeline & Assessments. Figure 6 illustrates a detailed timeline of events and evaluation process during the research project (Missiuna et al., 2017; Missiuna & Hecimovich, 2015). Quantitative and qualitative data were used to comprehensively address research objectives. All measures were selected based on utility, validity, reliability and richness of data the measure produced (Missiuna & Hecimovich, 2015).

Research team members facilitated focus groups and interviews using an implementation science framework, prompts, and cues to elicit detailed descriptions. All data were collected over the course of two academic years: T1/year 1 = fall 2013; T2/year 1 = spring 2014; T3/year 2 = fall 2014; T4/year 2 = spring 2015. Table 3 describes and outlines the measures used throughout the research project. Educators were asked via standardized and non-standardized survey to comment on: their knowledge, skill, and experience, and on the identified child's behaviour before and after implementation of service. Seventeen educators also provided feedback about their experience during a semi–structured interview with a member of the research team (Missiuna et al., 2017; Missiuna & Hecimovich, 2015).

How was coaching delivered? What did P4C coaching *look like*?

Coaching Delivery. To truly appreciate how job–embedded coaching was delivered and what it *looked like* in P4C, the first author (K.W.) interviewed 14 educators about their experiences. To understand the P4C coaching experience, the educators' experiences were interpreted and analyzed using interpretive description as a method of inquiry (Thorne, Kirkham & MacDonaled–Emes, 1997; described on p. 33). The interpretive description below is the first author's interpretation of the P4C experience, based on the collective recounts of educators interviewed. Overlapping experiences,

language, phrases, themes, and descriptions were analyzed (as described in Chapter Three). The pseudo character, Ms. Mitchell, was created for illustrative purposes and to contextualize the quotes pulled from various interviews that are woven throughout. Several themes emerged that are beyond the scope of analysis and investigation for the purposes of this thesis. However, the most salient themes were integrated into the interpretive description and include: lengthy wait lists and educator under-preparedness to provide support, OT expertise and skill set, liaison abilities, collaboration, and the perception of the OT as "invaluable".

Interpretive Description:

Prior to P4C, obtaining OT support was a process. The process began with educators trying to interpret what developmental challenges were affecting a child's learning, if they were even developmental at all. Educators were then required to complete "*endless streams*" of paperwork for CCAC, only to find out that children were waitlisted for an OT. Ms. Mitchell, a second grade teacher in a P4C partnership with an OT coach indicated educators met with CCAC twice a year merely to hear the names of the children who were still on the list. In the meantime, she irritably described having to give parents the following very frustrating message: *"well, …we've put a request for services in but it will probably be 2-3 years before we really see anyone in the school, and then your child will receive a few therapy sessions, and in the meantime we can try a few things out, but unfortunately we aren't clear on what we should do".* In non–P4C schools this remained the model of service delivery, and it was described as *"useless".* P4C was introduced to Ms. Mitchell's school for a two–year term and the change in service delivery was *"thrown"* at educators by their school principal. Initially, teachers were quite skeptical, and anticipated that it would add to their workload. However, Ms. Mitchell said that she's *"never seen a better model"* than P4C. In the P4C model the OT really took everything on. For example, the OT approached

the teachers to discuss what the support model should look like, and asked Ms. Mitchell how she could play a role in providing the resources teachers and the community needed. The OT held in–services at lunch, described her role, and created lessons for teachers, such as an art lesson, where she then observed and assessed fine and gross motor skills. This initiative wasn't just another thing teachers "*had to do".* Ms. Mitchell indicated that made a *"huge difference"* and *"teachers bought into that",* seeking her out.

The OT didn't have an office, rather used a desk in the corner of the resource room where staff left her post-it notes with questions. In primary education, educators were described to move very quickly throughout the classroom to keep up with the children, and the OT was really good at working alongside teachers. The OT would typically collaborate with teachers on the fly either face–to–face or over the Internet about what they can do in the classroom to support students. When the OT is in the classroom and observing, Ms. Mitchell was able to approach her and ask, *"this is happening, what do you think?".* Ms. Mitchell also described chatting with the OT in the hallway, before school, during lunch or over prep time, sometimes in the special education office, and other times in the parking lot on the way out. The availability and flexibility of the OT was valued. The OT offered a lot of resources through email, the cloud or via her Pinterest board, which Ms. Mitchell happened to follow regularly. Apart from that, the OT spent one 100-minute block of time in Ms. Mitchell's class every Wednesday. The OT started by sitting at a table in the classroom, prepared with activities to develop students' fine motor skills. Ms. Mitchell remarked that "*the kids loved approaching her, and quite often it was the kids that didn't need the help that would go to her, encouraging students who did to do the same".*

With her breadth of knowledge and skill, the OT contributed to the classroom and school community. For example, after a bit of observation in the classroom, she shared her thoughts pertaining to specific children and where/which strategies we might trial in the future. She facilitated setting up the structure in the classroom to make learning accessible and brought fine

motor development back into kindergarten where it all begins and voiced that children "*can't write a paragraph in grade three if they can't hold a pencil*."

In some classes the OT led small groups, while other times, she withdrew students to work with them outside the classroom. As a teacher, Ms. Mitchell often received technology, which she valued, yet didn't know how or when to apply it. During her partnership, Ms. Mitchell learned how to differentiate instruction by integrating literacy apps applicable for all students, indicating that courses don't offer that kind of practical skill development. Educators and parents alike found her support *"invaluable".* The OT attended individual as well as parent council meetings, where she shared her observations, distinguished differences between learning disabilities and output problems, and provided activities parents could do at home. Ms. Mitchell remarked that the OT "*just slid into*" her "*school community.*"

The OT not only acted as a *"liaison"* to support parents in accessing other professionals the student may benefit from, but she also provided *Ms. Mitchell with the "knowledge"* and *"confidence"* to have these conversations and navigate the health care system more comfortably. Ms. Mitchell also described feeling confident in delivering programs that she "*didn't feel confident in even after decades of delivering them*". The OT was available to prescribe technology, check forms to ensure the referrals address the students' needs, and has reviewed psychoeducational assessments for the purposes of developing strategies for IEPs. The OT worked with Ms. Mitchell and other educators to generate strategies that addressed the needs of children which allowed educators to assess students early in the school year and provide slight modifications if needed. Ms. Mitchell expressed the partnership as *"a collaborative effort between two areas of expertise, one being education, and the other being occupational therapy".*

In P4C, an OT's role has become more than just assessment. P4C was described to be about identifying signs outside the range of normal development that teachers don't necessarily recognize. Educators appreciated have someone in the building with an expertise that they could approach and have multidisciplinary conversations with. Ms. Mitchell concluded the interview by

saying *"every school in Ontario needs an OT because there are so many areas that we cannot provide programming and support for in the way that meets students' needs".* She expressed that she *"can't imagine being back on my own again",* as again, the OT was *"invaluable".*

What were P4C's Outcomes?

For the purposes of this thesis, the following provides a descriptive summary and overview of P4C outcomes. Only outcomes that address each previously outlined (p. 52) research question are included. The P4C executive summary and additional findings can be located at www.partneringforchange.ca (Missiuna & Hecimovich, 2015). Redefining the role of the OT in the school as a job–embedded coach was intended to identify and describe children who have developmental needs (e.g., DCD) that interfere with classroom participation and to build capacity amongst educators and families in context. Consider P4C's first research question: *1. Does P4C build capacity amongst teachers, schools and school boards to support children with DCD in the classroom?* P4C built capacity amongst teachers and within schools across three school boards to support children with DCD in the classroom. Therapist coaches applied dynamic performance analysis to support educators and students (Campbell et al., 2016). In dynamic performance analysis, therapists first identified students who struggled with motor and physical development, and then they considered the strengths and challenges experienced by those children to generate a hypothesis that they tested by trialing prompts and strategies. Successful strategies were shared with and modeled for educators so that the educators were aware of how to support the child in his or her learning based on his or her strengths and needs.

Educator descriptions of coaching delivery were consistent with the pilot project (Missiuna et al., 2012) and can be explained by RTI (Campbell, Kennedy, Pollock & Missiuna, 2016). According to educator descriptions, coaches initially modified the classroom structure, then introduced materials and/or the intervention to target groups of children who required support, and lastly provided individual intervention if needed. The RTI approach targeted early identification, which enabled children to build on skills and to participate successfully. The way in which OTs approached educators about coaching was important to educators for adoption. Given that Lunch and Learns and Universal Design for Learning (UDL) strategies proved to be effective in the pilot project (Missiuna et al., 2015), OTs developed these opportunities to obtain the "buy–in" by creating lessons based on educator and community need, in turn opening more opportunities for capacity building to take place. According to educators, they just "slid right into the school community" enabling collaborative relationships by creating conversations and opportunities for further knowledge translation and instructional skill development.

2. Does P4C lead to increased sense of competence and satisfaction for parents to support their children with DCD in home/community environments? As part of the school community, OTs were available to connect with and support parents by providing information and strategies to aid a child's development and participation at home. More than half (62.4%) of the parents reported receiving suggestions to try at home and 89.7% received the strategies that were also being used in school (Missiuna & Hecimovich, 2015). In addition, more than half (65.3%) of parents reported that their children received an IEP by the end of the second year of service delivery. Over the two years of the study, an increase in parents' reported feelings of satisfaction and competence were evident

when caring for and accommodating their children with DCD within their home and community environments. Eighty four percent of parents' felt that P4C was beneficial to their child and/or family and 83.1% were satisfied with the service (Missiuna & Hecimovich, 2015.)

3. How many children with DCD were identified at an early age through this service; and how severe are their motor delays, strengths and difficulties, in the classroom and at home? The third goal of the P4C research project and important to all stakeholders was early identification of children with motor challenges and understanding the severity of the impairment. Over the course of the two years, 246 children who were on the CCAC waitlists were seen by the P4C OTs in addition to 351 other children (mean age = 8 years; no significant differences in age or sex between those children on existing waitlists and those who were newly identified). This latter group of children were identified and supported via the P4C service without a need for formal assessment or screening. Across both groups, 55% met the criteria for DCD while another 30% (waitlisted and newly identified) were identified with non–motor issues (Missiuna et al., 2017; Missiuna & Hecimovich, 2015).

According to educator interviews with the first author (K.W.), educators voiced the direct benefits of early identification and strategies to support children experiencing motor delays that interfered with participation in the classroom and at home (including those who were not otherwise waitlisted or referred to service). More specifically, across both years of the study, 806 children received support via OT services with over 8,000 strategies recommended and implemented and more than 1,200 teachers receiving facilitated lessons modeling strategies for inclusive education (Missiuna & Hecimovich,

2015). Responses from interview data as described in the narrative response above indicated that this collaboration was essential for educators as they previously weren't "*clear on what they should do."* In fact, educators recognized that "*it really was a collaborative effort between two areas of expertise"* that was required to support students. The outcomes of this collaboration were two–fold. Reports of educator experiences revealed that as a result of coaching, educators were not only able to provide direct support in the classroom, but also were more confident in their abilities to communicate to parents about how their child's development was affecting learning and in providing support about how parents could access additional resources.

4. Does P4C improve individual outcomes for children with DCD regarding participation and behaviour? Preliminary findings revealed that individual outcomes for children with DCD improved over the course of P4C delivery, addressing the fourth research question. At school, students demonstrated an improved ability to complete work with notable changes in writing and literacy. Students required substantially reduced adult assistance with full or modified participation. Therapists identified difficulties with and provided strategies for: pen, pencil and scissor use, outdoor daily physical activities, and independence with self-care (e.g., dressing and feeding). Improvements in participation and behaviour were evident based on the child's increased engagement in the aforementioned areas (Campbell et al., 2016; Missiuna et al., 2017; Missiuna et al., 2015; Missiuna & Hecimovich, 2015). Given the research design, causal relationships cannot be inferred; rather, relationships can be observed and interpreted as changes that occurred during the same time course as P4C delivery. Although the P4C study did not include a control group, pre- and post- comparisons revealed changes in

children's emotional and participation levels over the course of P4C delivery. At the beginning of the project, parents reported more emotional and conduct problems in their children than educators reported, particularly for symptoms associated with anxiety Parent reports also revealed an increase in children's participation at home (e.g., with chores and organized physical and community activities) demonstrating greater prosocial behaviour as well as a decrease in hyperactivity and emotional problems over time. The extent to which such changes can be explained by the P4C intervention is not known. For example, changes in child behavior could reflect age-related maturational or developmental changes associated with the passage of time, or they could reflect the impact of other services or educational supports children received concurrent with P4C. Similarly, parents' perceptions of increased competence may or may not have been causally linked to the provision of P4C services. That being said, it can be stated that there was an association between the provision of P4C services and positive child and parent outcomes.

5. What is the cost of the P4C service and lessons for spread? Finally, research costs and lessons for spread were of interest. The P4C model enabled providing service to a greater number of children. Children were transferred from the CCAC waitlist and received supported earlier and quicker which addressed their challenges. Findings from OT daily logbooks revealed that therapists identified more children with OT needs than had been previously identified through referrals to the CCAC-funded SHSS. Furthermore, logbook data demonstrated that when OTs were in classrooms, much of their time was spent observing children in context, collaborating with parents and educators, and using UDL (Missiuna et al, 2017; Missiuna & Hecimovich, 2015). Thus,

P4C services reached whole classes and grades within a school – this is many more children than could ever have been reached in the traditional, referral-based service model.

Researchers identified a framework for studying the change management process that encompassed monitoring and evaluating the intervention, stakeholder, organizational structure, service delivery, impact, and environment over time (Camden, Campbell, Stewart, Dix, McCauley, & Missiuna, 2015; Camden, Swaine, Tétreault, & Carrière, 2011; Missiuna & Hecimovich, 2015). At the conclusion of the P4C Implementation and Evaluation study, P4C was delivered in 60 schools (20 additional schools were added in the 2014/2015 year). All three school boards planned on delivering the P4C model in the 40 P4C research schools one day per week. HNHB CCAC continues to offer P4C in the original 20 schools under the name OT4C (with an undetermined frequency). OT4C embodies the principals of P4C and incorporated individual care plans. CW CCAC expanded OT4C biweekly to 170 schools, which completely eliminated waitlists for OT service (Brogan, Edwards, Godkin, Smith & Stewart, 2016; CW LHIN & Peel DSB, 2017). With some certainty, project coordinators confirmed the Central West CCAC expanded and offered the P4C service in all Peel District elementary schools once biweekly under the original P4C name (C.D., L.D., personal communication, April 26, 2017). In summer of 2017, the services of CCACs were transferred to the 14 Local Health Integrated Networks (LHIN) in charge of regional health care planning (Hepburn, 2017). To date, it is unknown how frequently P4C services are provided and to what extent those services resemble the P4C services that were provided in the Implementation and Evaluation Study (L.D., personal communication, March 2, 2018).

CHAPTER FIVE: WHO, HOW AND WHAT? A DETAILED CASE DESCRIPTION OF DSB

This chapter is the second case description of the collective–case study design, which was the basis for studying context, mechanism, and outcome (CMO) relationships in this thesis and prefaces the case comparison in Chapter six. Chapter six presents the results of a collective case–comparison that critically compares the contexts (using an organizational logic model) and outcomes of P4C and DSB to determine the mechanisms which are anticipated to underlie and drive job–embedded coaching. However, it is first important to develop an understanding about the cases and conditions (context) in which the phenomenon of job–embedded coaching exists. Chapter four was a case description about the way in which one project, Partnering for Change (P4C), delivered job–embedded coaching. Similarly, this chapter is a second case description about how a district school board (DSB) delivered job–embedded coaching and how it was studied by the Research in Advocacy and Inclusion Lab (RAIL) at Brock University. The data in this case description were collected from various sources as described in the methodology (e.g., administrative documents, interview data, published and unpublished conference proceedings; p. 35–37). This chapter serves to provide the reader with an understanding about how job–embedded coaching (phenomenon of interest) was delivered in another context. This chapter describes DSB (as studied by RAIL researchers) and specifically examines: (1) who was involved (e.g., stakeholders); (2) how coaching was implemented and studied (e.g., goals, purpose, coach training and selection, timeline, etc.); (3) how

coaching was delivered and what it *looked like* (e.g., educator experience); and (4): what happened (outcomes).

Who was involved in and represents DSB?

In 2012, the leadership of a local district school board (DSB, board name preserved for anonymity) in Ontario developed board improvement plans for the 2013/14 and 2014/15 school years to improve child equity and advance inclusive education for students who at the time were in self–contained classrooms within the DSB. Board leaders envisioned inclusive education as a gradual process, eliminating self–contained classrooms and acclimatizing educators to teaching students with disabilities and/or complex challenges that impaired learning. Teachers were provided with opportunities to develop and to enhance inclusive pedagogy and practice with the support of a job–embedded coach. The coach, also referred to by the board as an elbow–partner (i.e., working side by side) in the classroom, provided mentorship, support, and facilitated educator knowledge development by collaborating about inclusive instruction based on individual student needs, and corresponding learning strategies (e.g., using differentiated instruction and universal design for learning techniques). In turn, all students were exposed to enriched learning opportunities in the general classroom that would cultivate equity of academic and social opportunities, and overall academic and social success.

Stakeholders. Stakeholders included the board's administrative lead, the project team, the coaches and their teacher partners, the students and the community (Table 4). DSB is geographically situated in what might be referred to as rural Ontario, with elementary and secondary schools spanning across two regions of over 131,000

community members with little ethno–cultural diversity (e.g., 8% of the population identifying with immigrant status; Statistics Canada 2013). At the beginning of the transition, there were 40 elementary and secondary schools within the board housing 23 self–contained classrooms for students with exceptionalities (5 elementary and 18 secondary classes). The primary stakeholder and project–driver of this implementation decision was the Administrative Lead of the DSB. The leader's responsibilities within the board were comprehensive (see Table 4) and included delivering the best educational services to meet the needs of students and the stakeholders (e.g., parents, caregivers, peers, school employees, and school health professionals) invested in their education and development.

As the province of Ontario continued to approbate segregated education, this school board sought advocacy for the inclusive initiative from the board's Special Education Advisory Committee, along with a special education champion and researcher at Brock University to execute this non-externally funded initiative and to collect data that were later publicly used to promote inclusion and drive change (P.B., personal communication, April 28, 2015). The aforementioned researcher (S.B.) alongside her colleague and special education advocate (T.G.) developed a small research team to collect data and information about the variables that were involved in, and supported, such a system–wide change from segregated to inclusive education. The research faculty members communicated directly with the leader and respective administration (including two coach coordinators) for data collection. Fifteen certified teachers, experienced and trained in special education, were preferentially hired as job–embedded coaches and

worked with their 38 teacher partners four days a week to begin the transition of inclusive education for the 186 students in segregated classrooms. Table 4 describes the stakeholder populations in detail (A.K, M.P., personal communication, November 8, 2016; P.B., personal communication, April 28, 2015).

How did DSB implement and study job–embedded coaching?

Program Rationale and Goals. Job–embedded coaching as a method of professional development was chosen to facilitate building inclusionary teaching partnerships, with the exceptional learner as the focus. Coaches were provided with an opportunity to work collaboratively in partnerships on building knowledge and understanding practices that would support academic and social inclusion. This partnership and method of professional development was supported by the theoretical frameworks of collaborative and inquiry–based learning as well as beliefs adopted from the "Learning for All" document (Ontario Ministry of Education, 2013). Collaborative and inquiry–based learning are rooted in the constructivist learning theories of Vygotsky and Piaget and involve learning socially with a peer through active experimentation and discussion, placing the learner at the centre of knowledge creation based on his or her learning needs (Braungart, Braungart & Gramet, 2011; Lee & Smagorinsky, 2000; Mishan, 2011). With these frameworks, coaches worked with their teaching partners (i.e., the learner) to mutually identify student–centred goals and corresponding strategies, including modifying instruction or the environment to meet those needs. In conjunction with collaboration, reflection as a form of practice (Knight, 2007) was used to identify

accomplishments and articulate best practices as well as **identify and address ongoing learning gaps.**

The board leader envisioned building educator capacity in the classroom context to assist teachers with identifying and meeting student–centred goals using DI and UDL strategies, thus promoting inclusion and outcomes for students in grades K–12. In doing so, coach and teacher partners collaborated about differentiated strategies for instruction and formally created educational equity plans. Finally, increasing administrator awareness and literacy about mental health and wellness was also a goal. These goals were a reflection of action in fulfillment of the mission and vision of DSB: "*Engage Inspire Innovate …Always Learning. We will create positive, inclusive learning environments. We will maximize student outcomes. By valuing our students, our staff, our families, and our communities. Using principles of character, equity and sustainability*."

Research Purpose and Questions. A research component to the service delivery implementation was proposed by DSB to examine the process and experiences of the job–embedded coaches throughout the course of the implementation. In addition, it was of combined (DSB and Brock researchers) interest to explore the process and experiences of educators with regards to their perceptions, attitudes and pedagogy. To address this, researches in the RAIL lab at Brock University proposed the following research questions (REB# 13–022):

- How does a job–embedded coach help to support the transition of a school board moving from self-contained special education classes to fully inclusive classrooms, for the classroom teachers that will be creating inclusive classrooms?

- What barriers, challenges and successes do teachers have when adopting an inclusive philosophy to move students from self-contained classes to a board wide inclusive framework?
- What does the journey of teachers and coaches look like as they move through this transition in relation to their attitudes and beliefs, their practice and their self-growth?

Job–embedded coach selection. Creating the role of a job–embedded coach involved re–assigning educators with expertise in special education and pedagogical beliefs grounded in inclusion from their traditional teaching role, to that of a coach. DSB's human resource department advertised the two–year coaching position with an opportunity for extension. Qualifications included but were not limited to: teaching qualifications including communicating and instructing about math and literacy, core beliefs in support of inclusive education, collaborating and communicating with colleagues about instructional strategies using differentiated instruction, universal design for learning and technology. Candidates also were expected to understand Ministry and board policies as they relate to equity, collaborative learning and teaching inclusive education (Human Resources, ETFO OSSTF Teacher Bargaining Unit Posting, 2013).

Job–embedded coach training. During the 2013-2015 school years, 15 coaches (including 2 core coordinators) were hired to act as "*elbow–partners"* to collaboratively coach educators to teach inclusively. Coaches received formal training in cooperative– and inquiry–based learning in addition to instructional coaching at University of Kansas. Coaches were provided with various resources (e.g., literature and electronic resources) and were offered access to advice from paraprofessional experts and other professionals in the field of inclusion. To advocate for equity, student need, and wellness, the DSB leader re-distributed the allocated board funds to accommodate the training and

employment costs of job–embedded coaches. Financial resources were allocated annually to fund ongoing professional development opportunities for all coaches and coordinators. All coaches were offered continuing education opportunities (e.g., funded graduate level courses) through the University of Manitoba on Inclusive Education. In addition, some coaches were financially supported to pursue a Master's degree in Special Education. Coaches met Friday of each week for a full day to reflect, debrief, collaborate, problem–solve and share their experiences with one another (P.B., personal communication, April 28, 2015).

Partner Selection. School administrators (e.g., principals) of all 40 schools (10 secondary, 30 elementary) within the board were informed about the initiative and invited to participate in the inclusive coaching partnership opportunity. Teachers who taught a student with a specific learning profile (e.g., developmental disability, autism spectrum disorder, multiple disorders, mild intellectual disability or other complex needs) were *provided* with a coach. In elementary schools, coaches worked in up to four schools (each a half day or longer weekly); while in secondary schools, one coach was assigned per school (unless teachers expressed interest to the school administrator for additional coach support based on student profiles). Communication with families and caregivers about the initiative took place for the children who were being transitioned from self–contained (i.e., in segregated classrooms) to the general classroom (A.K, M.P., personal communication, November 8, 2016).

Timeline & Assessments. While the move towards inclusion began in the 2013-2015 school years, it is ongoing and long–term for this school board. For the research

portion of this board's transition to inclusion, quantitative and qualitative responses were obtained from coaches and educators about their attitudes, beliefs, and knowledge regarding inclusive practice and their experiences with job–embedded coaching and the inclusive model. Figure 7 illustrates a timeline of the data collection activities during the transition process. To measure change as a function of coaching, surveys (described in Table 5) were administered across four time points for coaches and two time points for teachers. More specifically, The Learning and Engagement Questionnaire revised Canadian version (Keen, Pennell, Muspratt, & Poed, 2011), Knowledge of Special Needs Questionnaire (KNSQ) (Good, Bennett, & Kumpf, 1999), and Teacher's Perceptions of Learning Environment (TPLE) (adopted from Long, Woods, Miltenberger, Fuqua, & Boudjouk, 1999; Woods, Long, Fuqua, Miltenberger, Outman, & Boudjouk, 1997) were administered to both coaches and teachers at times one and two. At time two, teachers also were administered the 'My thinking about Inclusion Survey' (MTAI; Stoiber, Gettinger, & Goetz, 1998). Surveys were completed anonymously online via surveymonkey.com. Coaches also were invited to electronically submit open–ended and confidential reflective responses facilitated by a researcher across four time points. Furthermore, coaches were invited to participate in open–ended focus group discussions about their experiences and role across four time points. Educators were invited, separately, to participate in open–ended focus group discussions about their experiences across two time points. Educators also were invited to individually participate in a one–on–one interview to share their experiences about being in a coach partnership.

How was coaching delivered? What did DSB coaching *look like*?

Coaching Delivery. Interviews were conducted (by K.W.) with 7 educators (3 in person, 4 via telephone) to learn about their experiences. Similar to Chapter four, educators' experiences were interpreted and analyzed (see methodology pages 35–37) using interpretive description as a method of inquiry for the purposes of story–telling in this chapter (Thorne, Kirkham & MacDonaled–Emes, 1997; described on p. 33). The following interpretive description, created by the first author to portray job–embedded coaching at DSB, is written using the language, overlapping phrases, themes, and descriptions that are based on the collective recounts of the 7 educators. Similar to Chapter 4, the cumulative experiences including quotes from all interviews are presented in the context of educator Mr. DiMartino (pseudonym), an educator partnered with a DSB coach. Many themes emerged that are beyond the scope of analysis and investigation for the purposes of this thesis. However, the most striking themes were integrated into the interpretive description and include: partnership, communication, experiential learning and coaching content, and perception of coaching as essential for inclusion.

Interpretive Description:

Teachers in coaching partnerships viewed job–embedded coaching as essential to progress towards inclusion because it provided the experiential knowledge that traditional professional development cannot offer. Prior to the board wide change towards inclusive education, students with exceptionalities received education in a self–contained classroom or may have been integrated to the general classroom with a modified curriculum. Exceptional students with curriculum modifications "*would have got a sheet from the teacher*" and that would be the

student's "*modified program*" and the schoolwork they were "*doing*" during the period. Now, "*those kids*"—the same kids on the modified program—"*take it upon themselves to start using these tools (i.e., math manipulatives) that they really weren't given enough exposure to before and they are now comfortable using*". Students "*feel more confident in themselves and they feel they have a voice.*" Based on his experiences with job–embedded coaching, Mr. Di Martino is now able to ensure "*that all students have a voice and feel that their voice is valued and people are going to listen to them. They are not just kinda' sitting there quietly while everyone else has a chance to speak.*" Coaches provided educators with the opportunities for learning new skills and developing knowledge about teaching and including children with special needs in their classroom.

Inexperienced educators were a bit *"afraid"* of the inclusive model but the coach "*really helped*" their professional learning and teaching practice. The coach came with "*different training*" and because of that expertise educators gained a different perspective that could be applied to their programming. Mr. Di Martino shared that he didn't "*have much of a formal special education background*" and "*never took any formal special education*" during his teacher training. Educators referred to the professional development as a "partnership" and often named the coach as an "*elbow-partner*" who flexibly worked alongside them. Depending on schedules, the partners met weekly or bi-weekly during structured and/or unstructured meeting times. Mr. Di Martino described his relationship as positive and formal but also informal in some ways. Sometimes the coach would meet with him at the beginning of the week to communicate about how to meet students' learning needs as well as meet with him during his prep time—which was time he *"didn't mind giving".* Oftentimes the coach would meet with teachers "*on the fly*" whether it was at the end of the day, in the lunchroom, or just catching each other in the hallway. Sometimes communication would occur in the moment, as they saw and experienced

things happening in the classroom. The coach partner also communicated with teachers over email.

Like his colleagues, Mr. Di Martino felt assured knowing that the coach would be in his classroom for a 90-minute period each week. He described having the "*extra body*" as a "*really wonderful experience*". However, there was more to the "*extra body*" as the coaches were familiar with the classroom expectations as well as the goals and needs of the students, which enabled them to explain how goals and needs were being met. The coaches enhanced teachers' learning and pointed out students' needs by giving teachers the opportunity to be an observer during a lesson. These opportunities broadened teachers' perspectives about the special needs with which all students came to the classroom. Mr. Di Martino voiced that *"with 26 students*" he "*can't be observing one the entire time*". Mr. Di Martino taught a student with non–verbal exceptionality. The coach permitted his understanding of the student's needs by "*videoing"* the student *"and even watching"* him *"for a period of time"*, while trying to "*pin together what his mind is doing".* Other times, the coach instructed while the teacher observed. Educators appreciated that coaches listened and were immersed members in the classroom. When compared to other professionals, the coach was viewed as consistent with a presence that the students noticed too. Mr. Di Martino explained that his coach not only took in what he was saying, but also listened to the students. He expressed that the coach "*was seen as somebody to help everybody*" and he didn't "*think any of the kids would say they're there for the student or 'these' (exceptional) students"*.

Mr. Di Martino and his teacher colleagues learned how to plan lessons so that his students with modified programming received an entry point to access and participate in the lesson. Coaches provided educators with great ideas about how to integrate various strategies and use technology differently in the classroom and with the curriculum to support learning needs. Mr. Di Martino gratefully expressed that the coach was able to provide him with tools and resources such

as "*Oldenon books, about how to teach children with Down Syndrome*" that he otherwise "*wouldn't have been aware of*". In addition, coaches assisted teachers with implementing IEPs and setting social and developmental goals based on the students' capacity. Coaches and teachers discussed a situation, learning need, or a specific lesson and the techniques to differentiate a lesson to meet an IEP goal. Other times coaches would "*write it (IEP) right then and there*" in the classroom as learning (teacher, student, or coach) happened. Educators described job–embedded coaching as a partnership between two people with expertise that has supported teachers' practice and confidence. Mr. Di Martino conveyed that he could "*really communicate and talk to*" his coach. He described her as "*witnesses*" who saw the "*growth too"* which was *"fantastic"* because he had *"somebody to celebrate* (successes) *with as well*".

After every lesson, the coach and educators debriefed. The time to reflect, connect and collaborate was the "*biggest*" part of coaching delivery and pivotal in changing teaching practice for both teachers and coaches. The pair would talk about what happened, what worked, what didn't work, and about how and/or whether teachers were meeting students' learning needs. It was a chance for the coach and teacher to explore things that weren't working and together develop another plan or strategy to try again next time. Mr. Di Martino never felt like he was *"alone"* in applying his learning, and for him that was *"the biggest piece"* he *"appreciated"*. Mr. Di Martino expressed that the partnership "*enriched*" his "*professionalism and practice*" and believed that based on his experiences, "*it had enriched hers too*".

What were DSB's Outcomes?

For the purposes of this thesis, the following provides a descriptive summary and overview of DSB outcomes. The above description of coaching delivery synchronously addresses the first research question (*how does the coach help support teachers?*). Three

key components of coaching delivery included the amount of time coaches invested in educators' learning, the coaching content, and evidence of educators' learning. The school board redefined the role of the educator to that of a collaborative coach with the intention to develop: educator capacity to teach more inclusively; administrator awareness and literacy about inclusion; student and staff awareness about social equity; mental health and wellness for students with disabilities; as well, the school board aimed to reduce segregation by integrating students with disability or impairment from 1 of 23 self–contained classrooms to a general classroom. By 2016, the number of self–contained classrooms (i.e., students with disabilities segregated and receiving education in a separate classroom) was reduced by 65%. Therefore, there were 17 students in total who received education in self–contained classrooms. Eight of those self-contained classrooms were in secondary schools. For the 2017/2018 school year, a 90% reduction in segregated education was anticipated with two self-contained classrooms remaining (A.K, personal communication, May 2, 2017). Students with disabilities or special needs not only participated in the general class, but also received non–modified credits demonstrating a "capacity to learn the curriculum in ways educators have never seen before" (coach comment). According to educators, these students developed new friendships with peers and had greater self–confidence. To promote how social inclusion was happening, the DSB held a board rally, created and publicly posted videos on YouTube and other social media platforms with the slogan "I AM DSB" (references, links and names retained for anonymity) to demonstrate how inclusion was happening within the board and capture the pride students had for the community to which they belonged. Researchers sought to

examine the barriers, challenges, and journey through the transition based on the experiences of coaches and educators. Although student data collection is not yet complete, results from coach and educator data analyses suggest that inclusion is a challenging yet positive process which was facilitated by the expertise and support of a job–embedded coach.

The following section descriptively summarizes RAIL's main and preliminary research outcomes with respect to their second research question (*what are the barriers, challenges and successes that teachers experience?)* (Gallagher & Bennett, in progress; Gallagher, Bennett, Somma, Wlodarczyk, & Shuttleworth, 2015, Somma; 2017; and Kipfer, 2015).

The Process and Experiences of Coaches as a Job–embedded Partner. In addition to the content and the amount of time coaches invested in educators' active learning, Gallagher and Bennett (2018) identified six important principles for inclusive practice based on the cumulative experiences as described in the reflective responses of the job–embedded coaches. These six principles (pre-requisite, process, precipice, promotion, proof and promise) are referred to in the "6 P's Model". Figure 8 illustrates the 6 P's as a metaphoric spiralling staircase with each "P" a requirement to advance to the next, building and developing with each partnership interaction. Building relationships, a prerequisite of job–embedded coaching is the foundation and first step in the collaborative partnership. Without relationships, the coaching process and reflection is not possible. While the intervention of job–embedded coaching was intended to build educator capacity, coaches became aware and cognizant of their own growth and

knowledge about universal design for learning, inclusion and the process of teacher change. This opportunity for personal and professional growth was referred to as a precipice because it was the point of contention between the knowledge and beliefs they held and those of their teacher partners – which may not have been aligned – establishing an attitudinal barrier about inclusion. For the attitudinal barrier to be alleviated, administrative support was necessary for the promotion of change to effectively occur. Coaches also were able to reflect on their own experience and find proof of their efforts in practice as evidenced by teacher change and inclusion, which provided them with promise for their role in the same capacity in the future (Gallagher & Bennett, 2018).

Understanding the "6 P" model (Figure 8) gives rise to the role school board support, attitudes, and beliefs about inclusion have for job–embedded coaching. The experiences of educators and coaches also can be used to address the second research question and further identify the barriers, challenges and successes teachers have when adopting an inclusive philosophy to move students from self-contained to inclusive classes. Gallagher and Bennett's (2018) emerging model for job–embedded coaching in the inclusive context is supported by previous research findings of Wlodarczyk, Somma, Bennett, and Gallagher (2015). Early in the research phase and based on an initial focus group and reflection data, Wlodarczyk et al. (2015) identified systemic and administrative barriers that posed as a challenge for coaches that subsequently created a strain for relationship building and collaboration at the onset of service delivery. For instance, principals lacked information about the transition and intervention used to support teachers. As a result, many teachers were under informed or unaware of the initiative and

had the misconception that coaches were "someone from the board" monitoring their teaching. Coaches described communication challenges with school personnel due to conflicting beliefs about inclusion; this example of realization according to Gallagher and Bennett (2018) is the *precipice* of the coaching process. Building strong and trusting relationships and overcoming misconceptions about their role and inclusion is the first step coaches identified as important for creating a partnership. Despite this, and consistent with parallel research (Gallagher & Bennett, 2018; Somma, 2017), it was not until teacher partners and coaches witnessed the effects of inclusion first–hand that their attitudes and beliefs were transformed, and their partnership evolved into a more meaningful one, with deeper connection. Finally, coaches identified reflection and peer support as important facets for their role to advance and be effective coaches.

The Process and Experiences of Educators in response to being coached. Understanding the experiences of teachers who were partnered with coaches is still in progress. Therefore, to address the third research question (*what does the journey of teachers and coaches look like?*) it is important to consider the impact the board wide change towards inclusive education had on all educators. Using a descriptive phenomenological framework, Somma (2017) investigated the accounts and experiences of 10 teachers with over a decade of teaching experience, who recently taught in self–contained special education classes and were reassigned in their teaching role to fully inclusive educators. Somma specifically was interested in special educators' attitudes and perceptions about students with exceptionalities and how inclusive practices have changed since their classroom reassignment. Somma's findings (Figure 9) demonstrate

that a shift in beliefs, pedagogy and inclusive practice can be described as an evolving 5–stage process that begins with a charity–based inclusion framework and ends with a rights–based one (Somma, 2017). This research is particularly important as it revealed that being a witness to and experiencing the outcomes of inclusion (e.g., peer advocacy, friendships, social capital for students with exceptionalities) in this specific context were pivotal in these educators' change in beliefs and practice. Furthermore, this research revealed that Educational Assistants (EAs) expressed feeling overwhelmed and frustrated with their uncertainty about whether they were meeting student needs. Combined, these outcomes inform the impact change in service delivery has on other classroom professionals as well as identifies additional professional development areas that may be targeted with job–embedded coaching.

All educators are important for the ongoing success of each and every student; however, EAs have an instrumental role in student development. Although EAs were not paired with a job–embedded coach, their practice also was changed because of the transition. Kipfer and Specht (2015) examined how the role of EAs changed during the transition to inclusive education. Fifteen EAs who previously supported students and educators in self–contained classrooms and transitioned into inclusive classrooms were interviewed to determine the supports they required to advance their professional development, and subsequently their new role in inclusive practice. Kipfer and Specht (2015) reported that EAs expressed the need for greater collaboration between themselves and classroom teachers, not only surrounding student planning, but also around how their expertise and skills could be better utilized to support teacher practice. With an

understanding of an exceptional student's developmental needs, EAs were able to speak to the quality and gaps of programming core to a student's developmental needs. Finally, EAs identified that successful inclusion was founded on the relationships EAs have with teachers, the relationships teachers have with students, and finally the relationships that exist between students and their peers. The voice and experiences of EAs in this research study were profound and insightful for future professional development planning.

The educator experiences that were used to create the interpretive description in this chapter also can be used to understand the journey of teachers and coaches. The seven teacher partners interviewed by the current researcher (K.W.) about their experiences with the delivery of job–embedded coaching, were asked during their interview to share their experiences about their relationship with the coach and thoughts about this intervention as a method of professional development. Preliminary findings (as outlined above) identified specific qualities about their coach partners that contributed to their positive experiences. Educators esteemed the relationship and described coaches as "being present", "knowledgeable", "resourceful", "helpful", and "good listeners". The outcomes of these qualities left teachers feeling as though coaches were "equal partners" and "witnesses to success". Educators also described feeling "comfortable" around coaches and recognizing that they were "accountable" to one another, recognizing that inclusion referred to including the coach too. While educators valued the year of collaboration with the coach, they recognized that not only was ongoing coaching necessary to prevent regression in practice, but also to identify, facilitate, and scaffold strategies based on the student's entry level (academic or social) for ongoing successful

inclusion. The educators began to identify that inclusion is strength- and not deficit-based, which was consistent with EA experiences. These preliminary findings compliment co-occurring research (Gallagher & Bennett, 2018; Somma, 2017; Kipfer & Specht, 2015) and highlight that inclusion and inclusive practice is an iterative process, and can be done with the support, collaboration, and expertise of coaches and existing job–embedded professionals (e.g., EAs) in situ.

CHAPTER SIX: FINDINGS — WHY? EXPLORING THE MECHANISMS THAT LINK CONTEXT AND OUTCOME

Chapters four and five illustrated two cases [Partnering for Change (P4C) and District School Board (DSB)] in detail, and this chapter provides the results of a case comparison to better understand job–embedded coaching using the Realist Evaluation Framework (Pawson & Tilley, 2004). In this research, the context (C) activated mechanisms (M), which in turn informed the delivery and outcomes (O) of coaching in both projects. This chapter will first describe the salient contextual variables, then describe the mechanisms, and finally discuss the contribution of the context and mechanisms in relation to the outcomes of job–embedded coaching for P4C and DSB. Figure 4 and Table 6 can be used as an outline or guide to navigate this chapter. Tables 3, 4, and 7–10, Figure 4 as well as Appendices D and E provide examples and excerpts from the analysis and will be used throughout for the purposes of illustrating the findings.

Context

After an in-depth case comparative analysis of 25 units (variables) (see left box in figure 1) associated with the delivery of job–embedded coaching in P4C and DSB, deductive reasoning was used to narrow down nine units that most noticeably informed the role *context* had on coaching. These nine units were selected as they were independent of the units (or variables) related to the research methodology of P4C and DSB (also described in methodology section of thesis). These nine units (see left box in Figure 4) will be referred to herein as *contextual affordances*. Affordances can be described as environmental allowances that characterize how an individual or animal lives in their

environment (Gibson, 1979). Affordances generate opportunities or situations and exist independent of an individual's ability to recognize them (Gibson, 1979). For instance, consider the Lunch and Learn example described in Chapter Two to illustrate the Realist Evaluation Framework. Suppose that in this example the Lunch and Learn took place in a garden of a park one kilometer from the hospital. The distance to the park is a contextual affordance. The distance can afford some staff to walk to the Lunch and Learn yet does not afford staff who are behind schedule to arrive promptly or even attend at all. In turn, staff who attend may be inspired by the facilitator (whose inspirational traits are an activated mechanism) and ultimately participate in daily meditation and self–report a decrease in work-related stress (outcomes).

Contextual Affordances

Pawson (2013) described institutional settings, respective infrastructure, and actors to characterize context and activate mechanisms. Based on this premise and the available data, the following contextual categories were created: C_A. institution; C_B. decision makers and stakeholders; C_C. financial resources; C_D. environment. Nine contextual affordances exist within these categories. The box on the left in Figure 4 maps the four contextual categories and nine contextual affordances. The categories will be briefly described. For a richer description of the nine affordances, Table 6 and Figure 4 can be used as navigation tools for this chapter.

C_A. Institution. The delivery of job–embedded coaching was conceptually influenced by the institutional contexts to which that stakeholder groups belonged to. Institutional context refers to the educational institutions of the University, its associated

departments and partnerships, as well as DSB as a school board. Using an organizational logic model for comparative case analysis, three primary variables that appeared to influence the implementation and outcomes of the programs were: 1.) the institutions' mission and vision; 2.) project (P4C and DSB) visions; and 3.) organizational partnerships. Contextual affordances numbered 1 through 3 in Table 6 correspond to this subsection and provide an overview of these three variables. Table 7 provides the institutions' mission and vision for each case. Differences between projects were found in the research initiatives' settings and disciplines (rehabilitation and education). P4C comprised health care professionals and research–scientists at McMaster University, who sought the support of experts in health care (i.e., Community Care Access Centre), education (i.e., Special Education expert), and local school communities to participate in research designed to change how occupational therapy was delivered for children with motor coordination difficulties and special needs. District School Board's initiative began within the school board by stakeholders who were trained in education and then sought the support and partnership of inclusive researchers to study the service delivery change.

C_B. Stakeholders and Partnerships. Table 6 provides an overview of the differences that existed for P4C and DSB's implementation investigators, partnering team members, and key players. Tables 3 and 4 respectively describe the specific stakeholders and partnering agencies for each case. P4C and DSB both had a variety of stakeholders involved in the projects. Each project began with the implementation investigators (i.e., rehabilitation professionals for P4C and educators for DSB) who were interested in changing service delivery. Once the primary team was formed, each team used an implementation plan to create partnerships with other stakeholders (including academic institutions and researchers). For each project, small working groups were then formed to support the projects and associated research. Other key players who had invested interest in the projects were coaches, educators, children and their caregivers.

C_C. Financial Resources. The seventh contextual affordance—funding—is compared in (the seventh row of) Table 6 for P4C and DSB. The financial resources available to support each project and employ coaches differed based on the discipline (health care vs. education) to which each project driver and coach belonged. Given this, the school boards did not fund OT coaches who worked in P4C schools, whereas the DSB financially supported the role of educators as coaches in their schools. In Ontario, the Ministry of Health and Long–Term Care (MOHLTC) funded local Central Care Access Centres (CCACs) who contracted the service provider agencies that employ occupational therapists (OTs) in schools. In comparison, The Ministry of Education (MOE) allocates funding annually based on need and enrolment in local district school boards (People for Education, 2017). These finances are responsible for all aspects of running each school

including non-healthcare employee wages, student and classroom resources, functional building expenses, and special programming, including transportation. District school boards then disperse funds to their local schools where each principal determines how funds will be allocated within the school (People for Education, 2017). Moreover, special education funding is protected and spent on programs, services, and equipment for individuals with special needs (Queen's Printer for Ontario, 2018b). Any unspent monies are carried forward to the following year's special education budget (Queen's Printer for Ontario, 2018b).

C_D. Environmental. When implementing and evaluating a change in service delivery, examining the demographic of the communities at the global (e.g., geographical community) and local (e.g., school) levels provide a richer appreciation of the context and populations. Demographic factors associated with the urbanicity (characteristics of urban areas at a particular time point) of the implementation communities are described with greater detail in Tables 6 and 8. A brief description is provided about socioeconomic differences between cases in the environmental category of Table 6 (i.e., 'implementation communities'; p. 160). Table 8 provides statistical information about cultural diversity, employment rates, family size, home ownership status, and income levels associated with the communities of the compared cases. Overall, family sizes were comparable for P4C and DSB, yet population, ethno cultural diversity, employment rates and household income varied between cases. For example, population in P4C was greater than DSB with four times more immigrants, a greater incidence of post–secondary education, and greater unemployment rate. The demographics of the implementation communities are important

to consider when providing service delivery and developing strategies for inclusive practice.

Mechanisms

The rectangle in the centre of Figure 4 narrows in on the mechanisms (M) of the CMO relationship. After retroductive analysis of the contextual affordances, two categories of mechanisms were identified to have a propensity to influence outcomes: *project driver mechanisms* (M_A) and *community mechanisms* (M_B; see Figure 4). *Project driver (i.e., related to the implementation investigators) mechanisms* included: 1) the professional training of the project drivers; 2) their professional perspectives and experiences; 3) professional designation and associated authoritative voice; and 4) the model of service delivery (rehabilitation or education). *Community mechanisms* (M_B) included: 5) community culture in the neighbourhoods to which the schools belong; and 6) school ethos and priorities. Combined, these mechanisms were created based on the contextual affordances. The following section will describe the mechanisms in greater detail. Table 9 contains a selection of quotes from various data sources that gave credence to the aforementioned mechanisms and will be referred to throughout the following section for explanatory purposes.

Project Driver Mechanisms (M_A)

1) Professional training. Table 10 outlines the professional competencies of the project drivers (and coaches) for each case. The professional training that leadership received differed for each case and shaped the conceptual and methodological decisions associated with the delivery and content of job–embedded coaching. The primary P4C project drivers were researchers regulated by the College of Occupational Therapists, and received professional training in rehabilitation and heath care. Primary DSB project drivers were trained in the discipline of education and embraced the competencies regulated by the Ontario College of Teachers. As such, professional training played a role in driver skill sets, core competencies (Table 10), conceptual understanding about why children with academic, social, and behavioural difficulties were struggling in school and how to address the their needs.

2) Professional perspectives and experiences. The selection of quotes in the first row of Table 9 illustrate how the contexts of academia, health care, and education shaped the perspectives and lens with which project drivers approached service delivery with. These perspectives and experiences acted as mechanisms for service delivery and its outcomes. "The acronym 'P4C' was used to reflect the principles of this **evidence-based** model in which the Partnership between the **family**, **occupational therapist**, and educator builds Capacity through Collaboration and Coaching in Context (4Cs)" (Missiuna et al., 2017, p. 2; see second row in table 9, p. 164). Project drivers' perspectives about challenges that affect childhood learning were shaped by their professional experiences as either health care professionals or educators with experience working in the school system. In P4C, the

project drivers were health care professionals and *CanChild* researchers who were more likely to approach academic, social or behavioural challenges from a health care and biopsychosocial perspective.

Practical experiences working with children who have motor challenges and the International Classification of Functioning, Disability and Health (ICF) framework (WHO, 2001) shaped P4C project drivers' thinking, perspectives, and practices. For instance, the ICF is central to perspectives and research at *CanChild* (Kraus De Camargo, Campbell, & Fayed, 2018; Stewart & Rosenbaum, 2003). In an article showcasing P4C as a model of service delivery, Missiuna et al. (2012) provided examples about the way in which OTs build teacher capacity drawing parallels to, and described the focus of UDL as, "*enabling occupational performance in the classroom through promotion of changes within the physical and social environment*" (p. 44). This description of UDL was supported by literature that also researched health care service delivery in the school context using the ICF framework (i.e., Campbell & Skarakis-Doyle, 2007). To compare, DSB adopted the Ministry of Education's definition of UDL, which is described to *"provide teachers with broad principles for planning instruction and designing learning environments for a diverse group of students*" (Learning for All Document, Ministry of Education, 2013, p. 12).

In comparison, DSB named their service delivery ***Learning for All***, which is "the title of a document from the Ontario **Ministry of Education**... [that] guides the work of **district school boards** in our province for **all students…**to bring **inclusion** of students to scale" (Inclusive Education Canada., 2015; Q&A with the DSB's Superintendent; see

second row of Table 9, p. 164). DSB project drivers approached childhood challenges from their experiences teaching children in the school system and stemmed from Ministry (e.g., Learning for All Document, Ontario Ministry of Education, 2013; Inclusive Education Canada, 2015) and international (i.e., UNESCO, 1994) priorities for equitable, rights-based, and inclusive education. Trained and situated in a research setting, P4C project drivers' perspectives also were shaped by methodological research frameworks such as response to intervention, dynamic performance analysis, implementation science, and organized action system theories using a socio-constructivist approach (Campbell, Missiuna, Rivard, & Pollock, 2012; Campbell, Camden, & Missiuna, 2016; Campbell, Kennedy, Pollock, & Missiuna, 2016; Missiuna et al., 2012; Missiuna & Hecimovich, 2013; Pollock et al., 2017; Missiuna et al., 2017). For DSB, project drivers' perspectives were situated in social and cognitive paradigms of collaborative inquiry and cooperative learning frameworks (A.K. & M.P., personal communication, November 8, 2016; Bennett et al., 2014; DSB Human Resources Department, 2013; Gallagher & Bennett, 2018; Inclusive Education Canada, 2015; Kipfer, 2015; P.B., personal communication, November 7, 2016).

3) Professional designation and the authoritative voice. The professional designation and reputation of a project driver generated an authoritative voice. Authoritative voice was a term created by the first author (K.W.) for the purposes of this thesis to describe the credibility, leadership skills, and respected hierarchy associated with the person voicing the authority to influence decisions. Authoritative voice is seldom challenged due to the well–regarded reputation associated with it. When authoritative

voice is amplified it acts as a mechanism with the commanding ability to persuade and mobilize change and service delivery outcomes. Authoritative voice was evident in the way project leaders were portrayed to and perceived by their stakeholders and communities. For example, P4C's project drivers are "*world leaders*" (*CanChild*, 2016), champions, and "*experts*" (McMaster, 2018) in the field of DCD and childhood disability with partners who held titles such as "*Chief Executive Officer*" (Missiuna & Hecimovich, 2015). DSB's project drivers held titles such as "*superintendent*" spearheading the board's policies, procedures, distribution of funding, and changes in service delivery within the board to meet the needs of students and staff. DSB's project drivers were also "*experts*" and influencers in the field of special education who sought partnership from stakeholders who were "*research leaders in the field of inclusive practice*" (Bennett et al., 2014). These leaders held titles such as "*Associate Dean*", "*Co-Chair*" and "*Co-author*" (Brock University, 2017; Clibbon, 2015). Accordingly, professional designation and accompanying authoritative voice supported P4C and DSB's project drivers' credibility to mobilize change. In addition, their reputations convincingly captured the interest of stakeholders and decision makers in both disciplines, which in turn was influential for implementing new service delivery practices.

4) Models of service delivery. P4C and DSB both sought to change service delivery in the school context to improve childhood outcomes. Contextual affordances (e.g., organizational partnerships, funding, institution to which implementing investigators belonged) showcased that P4C addressed childhood outcomes via job–embedded coaching operating within the health care model, which is *extrinsic* (or outside)

to the delivery of education. Alternatively, DSB approached childhood outcomes from an equity–based inclusive education framework, which is *intrinsic* (or within) to education delivery. This difference in how service is delivered – extrinsically versus intrinsically – acts as a mechanism for student outcomes as well as coach and educator professional growth (described in more detail below on page 111). The extrinsic and intrinsic nature of service delivery was evident in who was selected as a coach and how that professional fulfilled her role as a coach for each case. Occupational therapy coaches were sourced and hired from health care provider agencies external to school board, whereas DSB coaches were educators who worked within board and were familiar with the schools and classroom practices. Health care and research vocabulary was used to describe P4C. Some words used in the description include "*rehabilitation*", "*participatory action*", "*evidence–based*", "*DCD*" and "*Medical Research Council*" (see row titled 'Model of Service Delivery' located on p. 167 of Table 9). After exposure to P4C, OT coaches endorsed feeling "*inside of it instead of outside*", when referring to their role in the school community (Campbell et al., 2012, p. 55). The last quote reaffirms the otherwise external nature of occupational therapy service delivery. DSB's description of the service delivery model used language that was consistent with education terminology such as: '*learning environment*', '*inclusion*', '*special education*', and '*collaborative inquiry*' (see fourth row, last column in Table 9). Therefore, the professional roles, knowledge–base, and culture that the coaches brought to the programs and classrooms encompassed a predominant health care/rehabilitation or education lens and therefore shaped the personal and professional growth of the coach and the educator in the partnership.

Implementation Variables of Project Driver Mechanisms

The contextual affordances in either rehabilitation or education that underlie project driver mechanisms not only informed the *culture* the coach brought to the partnership, but also informed the *social, financial,* and *organizational* decisions made with respect to implementing coaching, and are referred to as *implementation variables*. These implementation variables are an extension of project driver mechanisms and further illustrate how project driver mechanisms lead to service delivery outcomes through social processes. Methods of communication are an example of the *social variables of implementation* and will be described as an illustration of how project driver mechanisms influenced *social* decisions and processes. The fifth row of Table 9 titled 'Implementation Variables' contains examples in the form of excerpts from written documents, presentations, or conversations between project drivers and the community. These examples provide evidence for how mechanisms shaped project driver behaviour during the implementation process through language. As a result, educator growth was developed, and service delivery was sustained. Both projects used language oriented in education (i.e., collaboration, UDL, inclusion) and research (i.e., evidence–based, survey). However, more health care oriented language (i.e., therapist, DCD, dynamic performance analysis, health care consent) was incorporated in P4C, and DSB included more education–centric language (e.g., inclusion, equity plan, modify, accommodate). The aforementioned social aspects shaped the beliefs, actions, and practices that formed the *culture* associated with the coaches' role as a therapist or educator. Both cases differentially prioritized the content of coach training as well as the allocation of training,

research, and knowledge translation dollars—referred to as *financial* variables. For example, P4C coaches had the opportunity to engage in a full-day training workshop, participate in online DCD training modules, and receive monthly mentorship meetings (Missiuna & Hecimovich, 2015). DSB coaches received weekly mentorship meetings, opportunities for continued graduate education, literature as well as formal training in instructional coaching with Jim Knight at the University of Kansas amongst access to annual funds for ongoing professional development (P.B., personal communication, November 7, 2016). Finally, the logistical details such as the informed theoretical frameworks described earlier, the frequency of collaboration, and communication with stakeholders are referred to as *organizational* variables and were important processes for the sustainability of coaching.

Community Mechanisms (M_B)

5) Community Culture. Table 8 outlines the ethnic and socioeconomic variability in the demographic communities for each case. Table 11 describes the way in which school boards' prioritize meeting the needs of the students in the communities they serve. Communities are defined by the roles and responsibilities of its members. Culture lies in the beliefs, actions, behaviours and events within each community (Tomas & Inkson, 2003). Therefore, community cultures can vary and are based on the demographics of a population. Various cultures can exist and may include: the cultures within the institutions that projects emerged from (e.g., university vs. school board), cultures within the individual schools involved, the individual classrooms, within a group of students, a group of staff, between coach—educator partnerships, etc. The school and classroom

cultures – particularly the cultural beliefs, actions, and behaviours surrounding inclusion, health care, and novel professional development/service delivery approaches – are mechanisms that influenced outcomes.

The sixth row of Table 9 (p. 169) titled 'Community Culture' and Appendix F (publication about DSB coach experiences) both provide supporting quotes and examples for the way student, coach, and educator change was experienced as a result of culture. For instance, educators in P4C partnerships welcomed coaches into their classrooms. Students "*got to trust*" the coaches who grew to feel that they "*had a role in the school*" (sixth row, Table 9, p. 169). Coaches in DSB initially described feeling unwelcomed within the community and culture to which they already belonged (in Appendix F). However, a result of coaches "*worming*" their way in (as termed by the coach; sixth row, Table 9, p. 169), DSB educators reported "*inclusion to spread through the school*". Appendix F provides more details about the challenges DSB coaches experienced as a result of the variable beliefs members of the school community (e.g., teachers, principals) had about the board's directives and enacting inclusion within the school. Overall, it was found that community culture was important for coach and educator outcomes as well as the ensuing outcomes of job–embedded coaching.

6. School Ethos and Priorities. While school ethos can be mistaken for school culture, ethos is defined in the education literature as the by–product of school culture and refers to the impression or feeling the culture leaves on an individual (Solvason, 2005). In an investigation of the literature, Solvason (2005) describes ethos as the effect, ambiance, or spirit within the school as a result of the schools' beliefs, traditions, and values. 'Ethos'

as a mechanism refers to the way people *felt* when school priorities were enacted within the school communities and was also important for the success of coaching as an intervention to support inclusive practices. Table 11 outlines the school priorities for each case, Hamilton–Wentworth Catholic District School Board valued "*attitudes and skills for effective partnerships*", while Peel District valued "*creating positive learning environments*" where "*staff and students are happy, recognised and fulfilled*". DSB valued "*engaging students, staff, and families*". These priorities, beliefs, and values are developed historically within the cultural community and are reflected through the engagement and participation of its members and the social roles they play (Tomas & Inkson, 2003). Ethos is the way in which coaches, staff, students, families, and community partners *felt* when immersed in that culture. Therefore, the extent to which stakeholders *felt* welcomed as partners, *felt* "happy", "recognised and fulfilled", or *felt* part of their school community was a by-product of, and had an effect on, the relationships and subsequent outcomes established. Contextual affordances created a school ethos and climate that was instrumental in how the members of the school felt. Subsequently, school ethos was an important mechanism for the risks coaches, educators, students, and families took as well as the opportunities they had, and consequently impacted outcomes of service delivery implementation. The fourth and fifth columns of Appendix F provide examples of subthemes and themes based on educator experiences that suggest educators in both cases felt the relationship to be a "*collaborative*" "*partnership*". P4C educators were "*comfortable*" (second quote, second column, p. 189 of Appendix F) in the partnership and DSB educators were able to find a "*connection*"

with their coach (first quote, third column, page 189 of Appendix F). Furthermore, the community mechanisms row in Table 9 (p. 169) includes two quotes that provide evidence to suggest that the actions of students and coaches contributed to the ethos by allowing P4C coaches to feel "*welcomed*". In contrast, DSB coaches initially felt less welcomed by their peers requiring them to do "*a lot of community building*" (p. 169). Further, Appendix F provides a series of quotes (used for the interpretive description) that illustrate how both P4C and DSB coaches allowed educators to feel "*helped*" and "*supported*" in changing their teaching practice. Focus group interviews with coaches in both cases also provided evidence for how they *felt* in relation to the successes and challenges they experienced (i.e., described below and supported by Appendix F).

CMO Relationships

The Realist Evaluation Framework outlines that a relationship exists between context and outcome that can be explained by mechanisms (Pawson & Tilley, 2004). Therefore, examining the contexts in which the intervention (e.g., coaching) was applied provided an understanding about the mechanisms. Further, it is believed that mechanisms may have a greater propensity to provoke change than perhaps the intervention itself (Wong et al, 2012; Onyura et al., 2016). In this chapter, contextual affordances were first described to understand *how* context afforded the described mechanisms. Then, the mechanisms (project driver and community) were described. Now, it is important to understand *why* the mechanisms shaped the outcomes of coaching.

Job–embedded coaching was successful in both P4C and DSB with outcomes at the level of service delivery (Missiuna & Hecimovich, 2015; Missiuna et al., 2015; Appendix F), the level of the coaches (Gallagher & Bennett, 2018; Pollock et al., 2017; Wlodarczyk et al., 2015/Appendix G), the level of educators (Kipfer, 2015), and at the level of students (and their families) (Campbell et al., 2016; i.e., Educator Interviews with K.W.). Nevertheless, the relationship that contextual affordances have with each mechanism is not limited to a one–to–one relationship (i.e., $C_A + M_A = O_1$); rather any contextual affordance (C_A, C_B, C_C, C_D) can be paired with either mechanism (M_A, M_B) in a synergistic way to influence outcomes (i.e., $C_x + M_x = O_x$; with *x* representing any variable). For instance, the mission and vision of the institution (C_A) paired with the project driver mechanisms (M_A) does not just result in educator outcomes alone (O_A), but influences all outcomes ($C_A + M_A = O_A$ or O_B or O_C or O_D). In addition, it was found (by the first author K.W.) that these mechanisms (project driver and community) could be added together. When project driver mechanisms distantly varied from the communities coaching served, outcomes varied as a result of the interaction. Therefore, both mechanisms may be added into the equation to provoke a particular outcome (i.e., $C_x + M_A + M_B = O_x$) and will be described in examples below. Consequently, and consistent with Onyura et al. (2016), the traditional context–mechanism–outcome (CMO) formula whereby one contextual variable paired with one mechanism results in a specific outcome ($C_1 + M_1 = O_1$), was foregone to accept a more synergistic description of the CMO interplay ($C_x + M_x = O_x$ <u>or</u> $C_x + M_x + M_x = O_x$).

In the present study, the four contextual categories and two main mechanism categories impacted outcomes in a non–linear way (refer to accompanying Figure 4). In both P4C and DSB, four outcomes of job–embedded coaching occurred. These were at the level of service delivery (O_A), practice and professional growth of coaches (O_B), practice and professional growth of educators (O_C), and student outcomes (O_D) (Campbell et al., 2016; Gallagher & Bennett, 2018; Kipfer, 2015; Missiuna & Hecimovich; 2015; Missiuna et al., 2017; Somma et al., 2017; Wlodarczyk et al., 2015). In sum, contextual affordances (C_{A-D}) evoked mechanisms (M_{A-B}), which in turn shaped the outcomes (O_{A-D}). The following section will describe eight examples of CMO relationships and their impact on the four main outcomes. Due to the volume and richness of data, two examples per outcome were selected. The examples provided were selected as they illustrate the interplay of both mechanisms on the outcomes described in Chapters four and five.

Service Delivery (O_A)

Service delivery outcomes (O_A) will be described from the perspective of adoptability, which is defined as the decision or action to employ an evidence–based innovation or practice (Proctor et al., 2010). The following informed adoptability:

1. alignment of perspectives and priorities
2. alignment of cultures

At the conclusion of the P4C Implementation and Evaluation study and at the discretion of the corresponding CCAC's, the delivery of P4C continued in the 40 P4C research schools, but not at the same frequency (one day per week). Both CCACs planned to expand and add additional schools to continue the service delivery. HNHB CCAC

delivered a modified P4C model in 20 Hamilton and Halton schools. Central West CCAC expanded and offered P4C in all Peel District elementary schools with *greater frequency* (i.e., biweekly) than the other boards (L.D., personal communication, March 2, 2018; CW LHIN Parent letter for Peel District School Board, 2017) but with less frequency than in the P4C study. In comparison, by the end of the first year that coaching was implemented for DSB, 23 of the 40 schools' self-contained classes remained for exceptional pupils (five elementary self–contained classes and 18 secondary). At the end of the second year, all elementary self–contained classes were eliminated and eight self–contained secondary classes remained. Along with nearly full integration and inclusive education, DSB job–embedded coaches continue to be employed by the board in the same role and capacity (A.K., personal communication, May 2, 2017). To fully appreciate adoptability outcomes, it is important to understand how project driver and community mechanisms were shaped by contextual affordances that were associated with the adoption of coaching. It also is important to recognize that all project driver and community mechanisms had some influence on service delivery outcomes; however, only three primary mechanisms (i.e., *project driver perspectives and professional designation, school priorities and community culture*) were selected as examples to illustrate how mechanisms led to outcome.

In order for adoption to occur, it was important that project drivers and school administrators identified and prioritized student challenges and inclusive teaching practices as a need, and recognized that building educator capacity via coaching was a means to address that need. Therefore, **the extent to which project drivers' perspectives (M_A) about need aligned with school perspectives and priorities (M_B)**

might have informed adoption**.** Further, those perspectives were developed based on the contextual affordances in place (i.e., intuitional affordances, C_A). When the mission and vision of project drivers and their financial stakeholders (e.g., CCAC) aligned with those of the school board, there was a greater likelihood for adoption. This was evident for Peel District School Board whose priority is to provide "***equity of access*** *and opportunity for* ***students and staff to learn, work and succeed***", offering "*all students a range of* ***learning programs****…" in the "****diverse communities***" they serve (refer to table 11). P4C envisioned building partnerships and fostering educator learning (C_A) and partnered with CCAC. CCAC's mission and vision was to "*To deliver a seamless experience through the health system for* ***people*** *in our* ***diverse communities****, providing* ***equitable access****, individualized care coordination and quality health care*" (CCAC 2013-2016 Strategic Plan). The perspectives of P4C and CCAC aligned with Peel's values (M_B) and are apparent in the language used to communicate their priorities (i.e., similarities depicted in bold typeface). While it cannot be said that alignment in priorities resulted in the adoption of P4C with greater frequency (O_A), it is evident that the alignment of values at the leadership level (e.g., between CCAC and P4C) were important for organizational change to be adopted. Further, leadership values were congruent with the values of the board that continued to receive the funded service at a greater capacity than the other boards in P4C.

In continuing to fund and adopt P4C in Peel, Central West Local Health Integrated Network (CW LHIN) delivered the service under the name "*OT4C*" (CW LHIN & Peel DSB, 2017). This renaming of the service further illustrates the impact context (i.e., health care) has on activating project driver (i.e. authoritative voice) mechanisms.

Emphasis in the name was placed on occupational therapy rather than coaching partnership, a cornerstone of the service delivery. In comparison, the DSB school board leadership determined the priorities (C_A) for its schools which meant that contextual affordances inherently aligned with project driver and community mechanisms (M_A + M_B). As a result, coaching was fully adopted (O_A) under the same name and in the same capacity.

The extent to which the ***professional designation and culture of the coach (M_A)*** complimented or aligned with the school ***community culture (M_B)*** was evident in the way coaching was adopted. While the functional coaching role (e.g., to build capacity) was similar in P4C and DSB, differences existed in who the professional was in the role (educators vs. occupational therapists; C_B), how that role was performed, and the culture the coaches' role brought into the partnership and school. In P4C, the role of the job–embedded coach was that of a "*therapist*". As a therapist, the expectation was for coaches to "*facilitate early identification of children with DCD*" (HNHB Presentation, November 25, 2013), who experienced "*fine motor* challenges" that interfered with learning or who were on a current "*caseload* or *waitlist*" for OT services (Missiuna & Hecimovich, 2015). In addition, OTs supported educators and parents by "*building capacity through collaboration and coaching in context*" "through *knowledge translation*" about strategies to support the child (Missiuna et al., 2012; Missiuna et al., 2015; Missiuna et al., 2017; Pollock et al., 2017). Strategies utilized *dynamic performance analysis*, UDL, and DI and were in the domains of self–care, self-regulation, productivity, leisure/sports, and environment (Wlodarczyk, et al., 2015b; Missiuna & Hecimovich, 2015). The

aforementioned quotes paired with the later renaming of P4C to "*OT4C*" exemplify the health care language and rehabilitative culture that was affiliated with the coach entering the coach–teacher partnership. These examples illuminate the role context has on culture as project driver mechanism (i.e., culture the coach brings) in a classroom. When the contextual affordance of the coach is not aligned with the school community or within the multidisciplinary partnership—a gap in perspective can become apparent during coaching adoption. Recognizing this gap is important because the shared goal to build capacity using educational strategies (i.e., UDL) for the purposes of improving student academic, social and behavioural outcomes might become lost in the cultural aspects affiliated with the coach.

Despite contextual disparities between P4C project drivers and school communities, some cultural alignment was evident between OTs and their educator partners and can be attributed to the overlapping contextual affordances mentioned earlier (i.e., visions, school priorities appearing in boldface on p. 102). Evidence of this was found in an educator's description of the OT coach as "*just sliding into the classroom*". This statement can infer a cultural familiarity existed that allowed P4C stakeholders to contribute to Peel's school priorities and culture that created a familiar ethos. In turn, it may have been easier for CCAC's decision makers and Peel staff to embrace relative to other boards who did not have contextual affordances that aligned in the same way.

On the contrary, in DSB, the role of the job–embedded coach was to partner "*at the elbow*" and help identify "*student–centred goals*" via "*collaborative inquiry*" (DSB Job Description, September 2013). To do this, the 2012–2013 strategic plan proposed using

the "…*Equity* and *Inclusive* Education Walkthrough Framework…to create a sense of belonging for *exceptional* students in the larger school community" (DSB Strategic Plan, 2012-2016). UDL and DI also were foundational developing strategies during instructional planning, task selection and planning the learning environment (Bennett, Gallagher, Somma, Wlodarczyk & Shuttleworth, 2017). The expectations were that the coach would co-plan, co-teach, and co-reflect to support educators in developing strategies and a social equity plan for the inclusion of students with exceptionalities by modifying and accommodating the provincial curriculum (DSB Job Description, September 2013; DSB 2012–2016 Strategic Plan, obtained September 2016). Differences in coach role (as either an OT or teacher) and associated culture that role brought to the classroom (M_A) were a function of the discipline to which the coach belonged. In turn, this shaped implementation and language used (i.e., italicized above) to convey and execute the role, while imprinting and acting according to their cultural systems (in health care or education). Subsequently, the extent to which educators and school staff perceived the coaches' culture (M_A) to align with their perspectives, language, and culture ($C_{D,}\, M_B$) was important for adoptability (i.e., as seen in Peel and P4C, and DSB boards; O_A). Coaches in both cases embraced collaborative traits that corresponded with their respective roles as either OTs or educators. Although P4C and CCAC had priorities that overlapped and aligned with the school boards they were serving, P4C coaches brought a health care culture into the classroom. In contrast, DSB coaches worked in and were accustomed to the DSB culture.

Practice and Professional Growth of the Coach (O_B)

Evidence of practice and professional growth will be described from the perspectives of:

3. challenges coaches experienced that led to professional growth
4. collaborative practice outcomes

In both P4C and DSB, coaching was a novel role that challenged and developed the practice, professional growth, knowledge, skill set, and competency of the coach as a regulated professional (i.e., OT and teacher). When paired with stakeholder affordances (C_B), the ***professional training*** of the coach and ***authoritative voice (M_A)*** informed the initial ***challenges*** and discomfort coaches experienced as well as their ensuing practice and professional growth (O_B). Trained in development, assessment, identifying barriers to occupation, rehabilitation, and enabling participation by identifying or creating strategies, P4C coaches moved from their traditional roles working with the child as the client to that of a coach working with the school as their client (C_A). OTs had the opportunity to practice and expand their skill sets supporting children with motor difficulties in a unique way. The "*therapist determined*" and identified student needs and "*strategies*", facilitated group lessons, and were available to all students and educators (Missiuna et al., 2015b). Although successful, OTs initially found the transition of roles and service delivery difficult, and some felt uncomfortable and unfamiliar with providing services to a whole classroom (Campbell et al., 2016; C_D). In a local focus group interview, one P4C coach described developing skills in "*classroom management, crowd control, keeping kids focused*", which were described as skills previously outside the OT's scope of practice

(OT Focus Group, April, 2014). Much like the P4C coaches, DSB coaches also initially experienced discomfort (M_B; Wlodarczyk et al., 2015; APPENDIX F).

The OTs' initial discomfort can be explained by their unfamiliarity working in the classroom context and lack of professional vocational training in providing service as a member of the school community (M_A, C_B; table 9). OT coaches voiced challenges fitting in and feeling welcomed in that role (see sixth row in Table 9). In comparison, DSB coaches were trained as teachers and they experienced discomfort due to the lack of communication about the service at the administrative level from project drivers (i.e., authoritative voice; M_A; see sixth row in Table 9). As an outcome of the challenges experienced, P4C's coaches' practice and professional growth (O_B) expanded in their competency areas of practice management (M_A), while DSB coaches' growth was in their competency areas of "*commitment to student learning*" and "*leadership in learning communities*" (M_A). With professional training in education (e.g., classroom management, delivering curriculum, assessment, IEPs, etc.; M_A), DSB coaches were "*elbow–partners*" who "*demonstrated core beliefs of inclusive education*", "*collaborative inquiry*" and "*provided direct support to teachers in modifying and accommodating*" the curriculum for students with complex needs (DSB Job Description, September 2013; M_A). DSB coaches' underlying discomfort was reportedly due to feeling unwelcomed by their teacher partners who were inadequately informed about the service delivery and/or had discordant attitudes or beliefs about inclusion (M_B), which required coaches to take on a leadership in communication (Wlodarczyk et al., 2015; Appendix F).

The professional training, discipline of the coach, and the extent that project drivers communicated that role (i.e., authoritative voice) to stakeholders was instrumental in coaches' comfort levels, preparation received, and the challenges coaches experienced. As a result, those challenges led to the coaches' professional growth. Relationship building was a central tenant of P4C. While OTs also worked at establishing and adjusting to relationships with their teacher partners, both OTs and their teacher partners received communication and support about the service delivery. With contextual affordances in research, knowledge translation and implementation science frameworks, P4C authoritative voice disseminated the service delivery to a greater extent than DSB. P4C leadership communicated and corresponded to stakeholders at all levels and invited them to have conversations with the coaches and team at a variety of platforms (e.g., school board presentations, individual school presentations, Lunch and Learns, parent advisory meetings, letters home to families, email and phone opportunities, etc.). Without the same contextual affordances, knowledge translation activities about the coaches' role weren't at the forefront of DSB's frameworks for creating change, and thus educators weren't prepared in the same way across cases. DSB educators were 'voluntold' by DSB leadership to participate in the partnership based on the placement of the child in a teacher's classroom. Hence, teachers didn't have a voice or opportunity to express concerns about the service delivery.

Despite differences in contextual affordances (e.g., stakeholder, institutional), creating collaborative partnerships were goals for both P4C and DSB. The **experiences ($\mathbf{M_A}$)** of the coach paired with the ***community culture and ethos (M_B)*** illustrated the

relationship between contextual affordances and collaborative practice outcomes (O_B). However, creating collaborative partnerships took time and the (classroom) community culture and ethos strengthened over the course of the two years for both projects. In an early interview, OTs expressed challenges balancing their role as both an OT and coach gravitating towards familiar experiences of taking a child out of the classroom environment to be liked by teachers. One OT stated "*we are trying to be the coach and be educator but it's hard. I am struggling to find the balance between the coach and the educator with the teachers while struggling to meet with the kids because they need me and need to be seen*". Another stated, "*I need to be clear about what my role is [to teachers] and I will be more confident and they [teachers] will be more confident with me. I think because I wanted them to like me, I complied and took kids out [of the classroom]*" (OT focus group interview, 2014). In an interview with DSB coaches, a coach reported being referred to as an "*exclusion coach*" by the school principal in a "*Freudian slip*" (Appendix G, p. 209). These examples showcase how school **culture** created initial discomfort for coaches' sense of belonging and fitting in (**ethos**).

Over time, **culture** and **ethos** evolved along with collaborative practice outcomes. Teacher partners demonstrated a desire to include OTs into their classroom by "*creating space*" and providing OTs with their own desk where staff and/or students were encouraged to approach. In another example, a P4C educator described that when she invited the coach to participate in an activity outside of the classroom (i.e., "*she ended up joining us and she stayed for the monkeynastics* [a physical education activity in the gymnasium]*"*), it was followed by the coaches' appreciation for the experience (i.e., "*you*

know what, I am glad I stayed for that"). These hospitable gestures were unfamiliar experiences to OTs in their traditional therapist role (M_A) and speak to the opportunities classroom ***culture*** provided OTs as therapists external to the classroom. Subsequently, these novel experiences left an impression on how coaches *felt* (i.e., **ethos)** as members of the classroom community (C_D). In comparison, DSB coaches were trained in a familiar classroom culture (M_A). Some DSB coaches also had a desk within the school; however, educators voiced that "*coaches knew they could just come in and join*" because they were aware of the classroom dynamics. Therefore, the *ethos* associated with the classroom community cultures in both DSB and P4C can be described as embracing of collaboration. Yet, differences in the way teachers embraced the coach were evident in the way they welcomed the coach into their classroom community and were based on their perception of the coaches' role as either external (i.e., a visitor or guest) or internal (i.e., existing community member) to the school community (C_B). This discrepancy also was evident in teacher descriptions of the collaboration. In interviews the first author (K.W.) had with teachers, one P4C teacher described the coaching partnership as a "*collaborative effort between two areas of expertise*" whereas a DSB teacher stated the partnership was a chance to "*explore and look at things that aren't working and coming up together with a plan and a strategy, and to just communicate, reflect, try things out*". In an interview, a teacher partner described herself and the DSB coach as "*equal partners and witnesses to success*", which was validated in another interview with a coach who stated "*once you see it [inclusion], you can't un-see it*" (Wlodarczyk et al., 2015; APPENDIX F, p. 211).

In both P4C and DSB, the community culture and ethos were important for coaches' collaborative experiences and differed based on the vocational role associated with the coach (C_B). Therefore, classroom culture and ethos (M_B) contributed to coaches' respective competencies in collaboration as well as in their professional knowledge in enabling occupation and enhancing student learning respectively (O_B).

Practice and Professional Growth of the Educator (O_C)

Evidence of practice and professional growth will be described from the perspectives of:

5. knowledge and practice
6. comfort being coached as method of professional development

P4C and DSB both successfully developed educators' professional **knowledge and practice**. Educators acquired skills to better identify barriers to student participation as well as developed a proverbial toolbox of classroom resources to aid in UDL and DI approaches they confidently applied to practice (Missiuna & Hecimovich, 2015; P4C and DSB educator interviews). The ***model of service delivery*** and ***perspectives*** **(M_A)** of the project drivers influenced the selection of coaching content and strategies. P4C coaching content emphasized academic and social skill acquisition from the lens of physical development (i.e., DCD) and environment whereas DSB content highlighted strategies to meet curricular expectations based on the students' ability (i.e., C_A, C_B). P4C coaches delivered information from the perspective of "*DCD*" whereas DSB coaches focused on curricular "*entry points*" for students with exceptionalities. Thus, coaching content was a product of contextual affordances that underlie the models of rehabilitation or special education. The delivery of the coaching content informed the social role (as either an OT

or teacher) and the culture and techniques the coach (M_A) brought to the interpersonal relationship and classroom (M_B). Through these interpersonal relationships, teacher partners developed greater confidence in delivering instructional content for both cases (O_C). For example, P4C educators described having gained a knowledge base about how fine and gross motor skill development can affect academic, social, emotional, and behavioural outcomes of students. Interview data showed that P4C educators received supplies such as scissors, pencils, raised paper as well as referrals for technology to improve participation and engagement in learning. In DSB interviews, teacher partners reported being better able to make the curriculum accessible for students' skill development. DSB educators also voiced receiving various resources such as books, suggestions for technological applications (apps), and related strategies to facilitate inclusive education. As a result of the partnership in both P4C and DSB, teacher partners expressed feeling more confident in implementing the material, which demonstrated growth in all domains of their professional competencies (O_C).

It is worthwhile noting that knowledge and practice (O_C) didn't evolve at the same pace and outcomes weren't equally successful for all educators on account of the contextual affordances (C_C) that activated project driver mechanisms and project implementation. Although the perspectives of the project drivers were influential in coaching methodologies and strategies, the ability to apply strategies in the absence of a coach or independently in subsequent years was difficult in some cases. In the final focus group interviews with DSB coaches, one coach witnessed "*a lesser level of inclusion*" (Focus Group, 2014) during the second year of the project for one student. Similar

sentiments were voiced in an interview with a DSB teacher partner who stated "*If I don't receive an inclusion coach next year I will probably regress back to a lot of my old habits …just because that's where I am more comfortable and that's the easy thing to do*". (Personal Communication with DSB Educator; June, 2015). The frequency of coaching was for P4C was less than the frequency for DSB. This difference was reflected in educator capacity and perspective about responsibility. By the end of the second year, one educator stated "*this year we didn't get as much help as we needed compared to last year and it isn't the OT's fault, it's the school's…. so it's challenging because students need the help and we can only offer so much of it*". The aforementioned quote suggests that educators believed OTs not only brought a competency and skill set that they as educators didn't acquire in professional training, but also that the school was to blame for the OT's absence.

School culture (M_B) was important for how readily educators developed an interest to participate in coaching, whereas the ***culture*** associated with the coaches' role (M_A) developed educators' **comfort** and willingness to experiment with this form of professional development (O_C). Since culture can be examined from the beliefs, actions, and behaviours of its members (Tomas & Inkson, 2003), it is important to conceptualize the coach and educator relationship from the perspective of their behaviours. Much like their coach partners, P4C educators also felt initially uncomfortable and unfamiliar collaborating with health care professionals in the coaching capacity (Campbell et al., 2016). DSB teacher partners also experienced uneasiness about being "*voluntold*" into the partnership and were inadequately informed about the shifts and directions of evolving

board initiatives, yet expressed being "*happy to have an extra set of hands*" (Wlodarczyk et al., 2016, p. 63). The contextual affordances (C_B, C_D) and mechanisms (M_A) associated with the coach contributed to the classroom and school ***ethos (M_B).*** It was found that when coaches' behaviours culturally aligned with educators, educators felt more comfortable with coaching as a method of professional development. To illustrate, OTs invited teachers to their online OT communities of knowledge that were distinct from their own coach training and education community. These online communities consisted of platforms (e.g., the cloud, Pinterest) that aligned with online communities and cultures with which educators were familiar. The invitation for educators to access the OT community resources demonstrated the way in which coaches enacted collaboration (M_A) and informed how teachers *felt* in the partnership (M_B). In interviews, educators expressed gratitude for the resources OTs shared via 'the cloud' and *Pinterest* and described their relationship with P4C coaches unlike any other health care provider, voicing a comfort level they didn't even experience with other professionals within the school. One educator stated, "*I would never talk to a principal the way I am talking to an OT, not trying to say that the OT isn't professional, but you know*", which provided evidence that teachers *felt* comfortable and could relate to their OT coach at a non–hierarchical peer level. Much like P4C, DSB coaches shared resources and provided lessons that allowed teachers the opportunity to witness student learning. DSB educators "*valued*" the "*communication*" and "*special education*" training DSB coaches brought and described their partnership as "*informal*" and "*non-threatening*". DSB educator responses indicated they *felt* better equipped to identify student ability, which they were

able to use as a starting point to address curricular needs in an inclusive way. Despite not having a coach, DSB EAs described *feeling* a change in the classroom community as evidenced by their improved interpersonal interactions with teachers and witnessing the social capital students with exceptionalities gained (Kipfer, 2015; Somma, 2017).

Student (O_D)

Student outcomes will be described from the perspectives of:

7. early identification and participation
8. student comfort and willingness to participate

Model of ***service delivery*** (M_A) paired with ***community ethos*** **(**M_B**)** were informed by institutional and environmental affordances (C_A, C_D) and played a role in identifying students' needs as well as were mechanisms that improved students' academic and social participation (O_D). The P4C (rehabilitative) model emphasized the reduction of waitlists and **early identification** of students with motor skill difficulties. Of the 591 students served in the first year of P4C, 70% of the children met the criteria for DCD or had significant motor impairments and 60% were newly identified (e.g., not on a waitlist for services; Missiuna & Hecimovich, 2015). Correlational relationships also were found between coaching and student participation at home and at school. For example, parent and educator reports suggested that students participated more in household chores, school preparation, neighbourhood outings with greater participation in both structured and unstructured physical activities by the end of the study (Missiuna & Hecimovich, 2015). Parent reports indicated that during P4C there was a noticeable improvement in the academic and social participation for a greater number of children, which resulted

students having more friendships and greater self-confidence (Missiuna & Hecimovich, 2015). The DSB (education) ***model of service delivery*** strived to provide equitable and inclusive education for all students. While DSB student outcomes are still unpublished by the research team, the benefits of inclusion were evident through the profound experiences reported by DSB coaches and educators. Students with exceptionalities gained social capital, participated more academically and socially as well as engaged more in activities at school and at home (O_D). Educators reported students were more engaged academically and socially meeting some of the same curricular expectations as their peers, which allowed them "*to feel a part of that community with everyone else*" (Educator Interviews, 2014). Parents were aware of the interactions their child with special needs was having in the school with peers, beyond the self-contained classroom, (page 206 in Appendix G), and also in the community. In personal communication, a teacher shared a caregiver's experience bringing her (previously educationally segregated) son to her eldest son's hockey practice where he was greeted and 'high fived' by his peers. These peers proceeded to request the mother's permission to allow her son, their "*friend*" to join them in independent and non–supervised play at the arena. The mother who was delighted and in shock, expressed that these were not opportunities or experiences previously familiar to her son (K.W., personal communication with teacher, 2014). The project driver mechanisms that interplayed with the community culture meant that students felt comfortable in and contributed to successful outcomes in both projects.

To achieve successful outcomes, students were required to try new strategies and adjust to novel routines. The ***culture*** associated with the coach (project driver

mechanism) and ***ethos*** were important for developing their sense of safety, **comfort**, and their **willingness to participate** (C_B). Initially students required adjusting to the change. A P4C educator reported that students felt insecure at first but trust was developed. The educator expressed that initially "*students were very uncomfortable in the classroom [as opposed to being pulled out of the classroom to work with the OT] and didn't feel like they belonged–or possibly felt that they were dumb–or unable to express what they wanted–or unable to do the quality of their work*". (Personal Communication with P4C Educator; June, 2015). The coaches brought an approachable, welcoming, and friendly culture that complimented the existing culture of the classroom. Students in both P4C and DSB welcomed and included the coach as another adult in the classroom. A P4C educator indicated that "*the kids' loved approaching her, and quite often it was the kids that didn't need the help that would go to her, encouraging students who did to do the same".* A DSB educator indicated "*the kids too saw the coaches as somebody that's in the room for everyone*" (M_A). In both P4C and DSB it was evident that students *felt* they were heard (O_D). A P4C educator stated that the coach was *"very visible and the kids knew and trusted her… she developed relationships with these kids*" (M_A). DSB educators also reported that the coaches "*listened to the kids"* and that the kids felt they had a *"voice …that was valued"*. DSB educators reported that students "felt more confident in themselves and *felt* that their voice is valued and that they had a chance to speak and people will listen to them". Based on coach and educator experiences and recounts of pivotal moments, it was evident throughout their examples that caregiver worry was alleviated. Caregivers were more informed about their child's participation and pleased

with the academic, social and behavioural progress their children made both at home and in school.

Summary

In summary, this case comparison from a Realist Evaluation framework provided a comprehensive understanding of the contextual features or conditions in each case that shaped the way mechanisms were activated to inform outcomes. **First**, the contexts of the project drivers activated project driver and community mechanisms that later determined the adoptability of coaching, the professional growth of coaches and teachers, and student outcomes. P4C project drivers belonged to distinct health care, rehabilitation, and academic contexts while DSB drivers were solely situated in elementary and secondary education. These contextual differences activated the mechanisms that led to the delivery and optics of coaching as well as its ongoing adoptability. In addition, coaching occurred with greater frequency when the contextual affordances between decision makers aligned. When affordances did not align, job embedded coaching was not delivered in the same way it was initially intended. Instead, job–embedded coaching continued under a different name (i.e., OT4C) and reflected the needs, context, and culture of the decision makers (i.e., CCAC) and were not always consistent with the schools in which the service was delivered in. **Second**, disparities in project driver and community mechanisms shaped the difficulties that both coaches and their educator partners experienced as well as the informed the culture of the coaching partnership. The alignment—or lack thereof—in contextual affordances were presented in the challenges at the coaching level, and provided the opportunity for coach and educator professional growth within and between their professional competencies. **Third**, a result of collaboration was that the application

of skills was greater when contextual affordances aligned and created a familiar feeling, or ethos in the school and partnership, which was important to best serve and support students' needs.

CHAPTER SEVEN: DISCUSSION

This final chapter provides a summary and discussion of the main findings and their contribution to the existing education, health care, and coaching literature. The overall methodological strengths and limitations of the research, implications and future directions as well as my personal reflections are discussed.

Summary of main findings

Using the Realist Evaluation Framework (Pawson & Tilley, 2004), this case comparison examined the relationship between context and outcome for two cases of job–embedded coaching as a professional development intervention. By critically examining context, three findings were important for the future use of job–embedded coaching as a novel professional development method for inclusive practices. First, it was found that **project driver** and **community mechanisms** shaped the delivery of coaching and its outcomes. These mechanisms were respectively activated by the context in which the implementing research team belonged to and the environment in which coaching was implemented. Second, an interesting **interplay** between mechanisms was discovered that indicated two mechanisms could combine to influence outcomes in the context–mechanism–outcome (CMO) interaction. This is an alternative way to interpret findings using the Realist Evaluation Framework and validated the assertion that mechanisms can provide a greater contribution to outcomes than the intervention—in this case coaching— itself (Wong et al, 2012; Onyura et al, 2016). Finally, the **alignment of project driver mechanisms with mechanisms operating in the school** community were important for the sustainability of coaching as an ensuing form of professional development. A summary of the specific contribution and impact of each is outlined below.

Main findings in the context of the literature

Project driver and community mechanisms. Previously, researchers have identified characteristics (i.e., stakeholder roles, service delivery approach, communication) that are important for organizational change outcomes; yet it was unclear how context influenced those characteristics (Akin, 2016; Bean, et al., 2010; Johnson, Pas, & Bradshaw, 2016). My thesis findings extend the literature by highlighting the role context has for those fundamental characteristics (referred to as mechanisms) as well as for the delivery and success of coaching. **Project driver mechanisms** refer to professional training, perspectives and experiences, professional designation, and authoritative voice of the implementation leaders and coaches as well as the model of service delivery in the contexts of either education or rehabilitation. **Community mechanisms** refer to the **school** culture, priorities, and ethos of the school communities in which coaching was implemented. Both were important for the delivery and outcomes of coaching.

In conducting this research, I found that mechanisms were activated by the affordances in the context to which implementing leaders belonged; in turn, this shaped the characteristics—such as communication—that are often identified as important for the success of coaching. For instance, earlier findings (Wlodarczyk et al., 2015) reported that a lack of communication between the school board leadership and the school staff served as a systemic barrier for successful coaching implementation. My current findings suggest that this systemic barrier can be further explained by the variability in contextual affordances. For example, when knowledge translation activities were an affordance (or priority) in the implementing stakeholders' context (i.e., Partnering for Change; P4C), school staff received more information and had a greater understanding about the changes in service delivery. In the absence of knowledge translation as a

contextual affordance, principals and educators experienced discordant beliefs about inclusion and were not aware of the coaches' roles or the benefits of service delivery change (District School Board; DSB; Wlodarczyk et al., 2015). My findings extend and contribute to the change management literature by providing explanation and depth about the influence context has on factors important for service delivery and outcomes such as communication, stakeholders, funding, leadership, training, and perceptions (Avalos, 2011; Camden et al., 2015, Segeren & Kutsyuruba, 2012; Winzer & Mazurek, 2011).

Historically, researchers who examine change within the school system have shown that the success of a new program, such as coaching, can be attributed to the interaction between the context in which that program was developed and the environment in which it is implemented (MacDonald & Green, 2001; Rossman, Corbett & Firestone, 1988, Yanow, 1990). Yet how the social processes associated with the stakeholders in the context in which the program was developed interact with stakeholders in the environment in which the program is implemented, has not been researched (Athanasopoulou and Dopson (2018). This interaction is important for researchers to consider, particularly when the perspectives of the service provider agency differ from those of the service user. These differences in perspective are evident in verbal and written communication and can pose as a cultural barrier for service delivery (Camden et al., 2015). In a recent systematic review of executive coaching literature, Athanasopoulou and Dopson (2018) reported that few researchers examined stakeholder voice and "whose story they are telling" (p. 85). In their review, Athanasopoulou and Dopson (2018) indicated that the predominating stakeholder voices were that of the coach, coachee, or a combination of stakeholders. Athanasopoulou and Dopson recommended that researchers consider the social context and organizational structure of the environment in which coaching is being implemented as well as

whether that environment aligns with the views and social processes of the organization that sponsored the coach. My thesis is one of the first studies in the coaching literature to examine the way in which context activates social processes and thus addresses the gaps identified in Athanasopoulou and Dopson (2018). By exploring all stakeholder contexts, including the organizations that sponsored the coaches, my findings contribute to the existing literature (Athanasopoulou & Dopson, 2018; Camden et al., 2011) by suggesting that the stories stakeholders tell do not always align with the culture or setting (i.e., the school community) in which the story took place.

Mechanism interplay and alignment. Examining both context and outcomes illustrated that an interplay and alignment existed between project driver and community mechanisms. These findings are important and contribute to the coaching literature by suggesting that the culture and ethos of the coaching environment are important for coaches to feel included as members of the school community and for the sustainability of the intervention. Furthermore, I found that when the goals and professional competencies of coaches and their educator partners aligned, an entry point for community and cultural immersion was created. The way that school community members (i.e., educators, students, families, school staff) perceived coaches as either 'members of' or 'visitors to' the schools and classrooms was based on the contextual affordances of academia, health care, or education. Thus, coaches approached students' academic and social achievement from either a rehabilitation- or education-based lens (e.g., perspectives, frameworks, and accompanying culture) that either was aligned or incongruent with the culture of the coaching environment. Researchers have shown that it can be difficult for external community members to fit into the school environment and its culture. MacDonald and Green (2001) found that substance misuse prevention workers in the role of capacity builders had to

"learn the ropes through immersion in the host culture" (p. 757) prior to being perceived as a peer in the school community and had to create "a viable role" (p. 757) for themselves. In my analyses, I too found that occupational therapists had to *learn the ropes* of classroom culture while educator coaches with strong beliefs about inclusion had to *learn the ropes* of developing the existing school culture to be more inclusive. Nonetheless, when coaches and their partners shared overlapping goals and professional competencies, it was easier for the coaches to immerse themselves into 'the host culture'.

According to the literature, maintaining research champion involvement is important for the sustainability of an intervention; further, more knowledge is needed to understand what factors improve investing in and maintaining evidence-based programs (Leadbeater & Gladstone 2015; Leadbeater, Gladstone, & Sukhawathanakul, 2015). In addition to ongoing champion involvement for coaching sustainability, my findings showed that it is important for variables associated with the champion's context (e.g., priorities, mission, and vision) to align with the priorities of the environment in which coaching is implemented. When the contextual affordances of the project drivers or champions aligned with those of the implementing leaders, there was a greater likelihood for adoptability. Coaching was delivered at the same rate after the two-year research phase when the project drivers were also the implementing leaders. After the two-year research phase and when the implementing leaders and accompanying priorities were external to the school boards and no longer involved the initial research team, coaching was not delivered in the same capacity. Instead, coaching was altered to more closely reflect the priorities and culture (i.e., rehabilitation) of those of the implementing leaders, which did not necessarily align with school priorities. Researchers have reported that changes in service can be met with reservations when programs do not align with the school's priorities, when the curriculum is

saturated, and when there are limited resources available (i.e., people and time) (Gardner & Ollis, 2015). Gardner and Ollis found that when school health became a priority and part of the school's mission, more individuals became accountable for facilitating change. My thesis findings enhance the existing coaching literature by suggesting that one way of systematically guiding the change process and maintaining coaching sustainability is to better understand how the contextual variables associated with the project drivers align with the implementation environments (Gardner & Ollis; 2015, St. Leger & Nutbeam, 2000; Whitelaw, Martin, Kerr, & Wimbush, 2006). Overall, understanding how context affords and activates mechanisms is important for the delivery and outcomes of coaching. Factors beyond tangible resources, such as the alignment of priorities, mission, visions, and culture of the stakeholder (service delivery provider) institution with the coaching environment (service users), were found in my research as important for program sustainability. I found that the absence of an alignment could be viewed as opportunistic as it highlights the existing professional and practice gaps for coaches and teachers about disability and inclusion in the classroom.

Methodological strengths and limitations

To my knowledge, this is the first research study that used the Realist Evaluation Framework (Pawson & Tilley, 2004) to study job–embedded coaching in education. Therefore, this research contributes to coaching, health care, and education literature by reporting on how the Realist Evaluation framework can be used to study job-embedded coaching practices in the education field.

The Realist Evaluation Framework was informative in conducting the collective–case study as it allowed the exploration of context for each case, as well as a comparison between cases. By integrating Thorne's methodology of interpretive description, I was able to create a

rich description of what the contexts '*looked like'* for each case and this was proved integral to understanding the social features of coaching. The complexities of the methodology that I used in my research offered a comprehensive approach to exploring and understanding the link between mechanisms and outcomes.

One of the challenges associated with using the Framework was distinguishing culture as a distinct mechanism that was different from context. Culture has been viewed as a feature of context in literature about the Realist Framework (Wong, Greenhalgh, Westhorp, & Pawson, 2012). However, it became clear that contexts (i.e., university, school boards) encompassed affordances (i.e., jobs) that attracted its stakeholders (i.e., project collaborators). In turn, those stakeholders embodied characteristics (e.g., perceptions, experiences, training), roles, and a subsequent culture that they brought forth into their partnerships.

Although outside the parameters of my thesis, the contribution of coach, student, and family interview data would provide more information about the experiences of coaching and enhance the understanding of mechanisms in the CMO relationships. In addition, having data from direct observation as well as random teacher selection and recruitment for the interview process may have provided a different perspective to the coaching experience (i.e., what it *'looked like'*). At the time of the research, several Ontario school boards (including those participating in P4C and DSB) were involved in a 'Work-to Rule' Campaign, and due to labour unrest, member checks were not completed; this is a recognized methodological limitation.

Implications

There is an ongoing need for professional development to address the knowledge disparities that exist between inclusive educational practices and the impact disabilities and impairments have for students' academic, social and behavioural outcomes. The Ottawa Charter for Health

Promotion [World Health Organization (WHO), 1986], the Pan-Canadian Joint Consortium for School Health (JCSH; 2004) and the Ontario Special Needs Strategy (Queen's Printer for Ontario, 2016) are international, national, and provincial multi–strategy approaches aimed to integrate and coordinate health services and equitable childhood education. When the priorities, missions and visions of school boards are not aligned with collaborative health policies and practices of the JCSH pillars, sustaining service delivery change is difficult. Inclusive practice is a collaborative effort and social responsibility that includes and extends beyond educator pedagogy and practice. Creating inclusive communities should begin with utilizing the existing social roles within in the school community; however, incongruent priorities, conflicting beliefs, and resulting cultural differences between contexts pose collaboration challenges. Action and leadership between both Ministries are crucial to advocate for a system-wide change to transform service delivery (Camden, Swaine, Tétreault, & Carrière, 2011).

This research has implications for researchers, health care professionals, and educators working within the school systems. For improving programs and organizational change Bertam, Blasé, and Fixen (2015) suggest that building competency through training is a primary driver for mobilizing change as well as for improving fidelity and sustainability. First, researchers should be advised that the context in which they are situated in and the social processes and the perspectives the context elicits greatly informs training itself, subsequent service delivery fidelity, and sustainability. Second, there is a culture, presence, and authority that service delivery providers, health care professional, and coaches alike bring to the schools and partnerships, which is defined by their context. The extent to which the culture and presence aligns with implementation community is important for adoptability and knowledge uptake. Being aware of and enacting the social processes of the culture we are immersing ourselves into

is important to create a viable role within the implementation's community and culture. Finally, educators and school administrators embracing inclusive philosophy should be aware that creating an inclusive community begins at the staff level.

Future Directions

Establishing shared beliefs about childhood disability, development, and learning may begin to create a common culture and social processes between rehabilitation professionals and educators as well as between educators with a special-education and inclusive lens and their teacher peers. Approaching childhood learning with a collective understanding about disability, inclusion, and inclusive practice may provide a common ground to allow rehabilitation professionals and educators to perceive one another *as part of* the same cultural community and *feel* like they have the same goals. To achieve this, future interdisciplinary research and coaching implementation may begin at the outset of service delivery by developing an understanding of the culture and respective environment where coaches have membership. With this knowledge, coach training can be tailored accordingly. Project drivers may consider incorporating coaching content and style based on the shared or overlapping disciplinary competencies and goals that are familiar to both the rehabilitation professional both as a coach and to the educator as a partner. By doing so, the partnership can begin based on shared cultural constructs, which will in turn enhance familiarity with the intervention. Incorporating a reciprocal learning component that provides the coach and partner with opportunities to have conversations about their conceptual approaches and frameworks to addressing students' academic, social, and behavioural challenges might also be advantageous for interdisciplinary collaboration. Given the efforts to enhance collaboration between educators and health care providers, it is important that all professionals involved have a shared understanding of the culture and the language, attitudes, values, and beliefs.

School priorities and cultural similarities and/or differences between projects might inform the readiness or adoptability of the ongoing service delivery at the board level and should be explored. Future research also should examine barriers to health policy change in education, coach experiences with service delivery as well as other forms of inter- and intra-disciplinary models for job-embedded coaching in schools. My findings suggest there may be interpersonal characteristics that coaches embody that are important for developing successful partnerships and are independent of beliefs, values, and administrative support that fosters coach-educator partnerships and need to be further researched.

Future directions for using the Realist Evaluation Framework to evaluate job-embedded coaching may consider using a program evaluation approach for data analysis (e.g., organizational logic model) to provide more support for its effectiveness in this framework. Furthermore, ongoing research should consider non–traditional CMO equations that allow for flexibility in the way contexts and mechanisms interact with each other and form relationships with outcomes.

Personal Reflections and Next Steps

In Chapter One, I outlined that I embarked on my PhD journey in rehabilitation science to determine effective ways of building bridges between health care and education to create shared knowledge about how the disciplines approached disability in the school system. Reflecting on my journey, several “contextual affordances” provided me with the opportunity to grow as a researcher and multidisciplinary professional. Over the past six years I have gained an understanding about the intricacies and benefits of qualitative research and have an enhanced appreciation for the element of human experience from the perspectives of both the researcher and the subject. As a researcher interested in ongoing opportunities to bridge the gap between

health care and the community, I value the importance of understanding the characteristics associated with the end-user, community members, and their environments.

The research for this thesis has reinforced for me the challenges that exist between health care knowledge regarding disability and the education system. The research, vocational opportunities, and conversations with peers that I have had throughout this degree have reminded me that the challenges extend beyond the classroom. I've learned that community members beyond the classroom environment value collaboration opportunities with an "expert" rehabilitation professional. Moreover, conversations with teachers and coaches have taught me that relatability, comfort, and interest can easily be achieved in collaborative partnerships by learning more about the culture of the individual or community and adapting accordingly to meet individuals of any age and ability "where they are at". Through the experiences of educators and coaches as well as my own, I've learned that discomfort and uncertainty will exist throughout the learning process but will ultimately prevail in personal and professional growth. Moving forward, I plan to apply my knowledge and skills through teaching, practice, knowledge translation, and dissemination opportunities that will allow me to inform other rehabilitation professionals and community members about the importance culture and context have for implementing services in the school system and other communities. Over the past several years, I have been fortunate to maintain and develop new relationships with colleagues from various backgrounds and training related to health care, education, and academia. I hope to foster these collaborative relationships in addition to be a contributing researcher at *CanChild* and RAIL to continue investigating methods to improve conversations between rehabilitation providers and educators to foster a shared understanding about disability and students' academic, social, and behavioural outcomes.

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Table 1.
P4C Descriptions of Stakeholders

Stakeholders	*N*
Project–drivers	*N* = 2
Professional Designations	
1) Professor, Researcher & Scientist, Occupational Therapist 2) Community Care Access Centre CEO and Principal Decision Maker	
Research Team	*N* = 17
Investigators: university faculty with doctorates and/or extensive expertise in occupational therapy, health care, rehabilitation; including a health economist, an epidemiologist, and a special education and inclusion activist.	*n* = 9
Project Coordinators	*n* = 2
Project Manager	*n* = 1
Student Research Assistants	*n* = 2
Doctoral Students	*n* = 3
Parents/Caregivers	
Total Number of Parent Participants	*N = 246*
Students	
Total Number of students	*N* = 592
Total number of research students	*N* = 246
Attrition	*N* = 30
Final number of research students for two years	*N* = 216
Coaches	*N* = 22
Coach mentor	*N* = 1
Coaches year 1	*n* = 10
Coaches year 2	*n* = 12
Community	
Family members, school employees, peers, health and other professionals in the school community	

Table 2.
P4C Online Training Module Topics

Module Training Topics
Module 1: Developmental Coordination Disorder (DCD) (Part 1)
Module 2: DCD (Part 2) Secondary Complications and Co-Occurrences
Module 3: Introduction to the P4C Model and Promoting Sustainable Change
Module 4: Understanding the Ontario School System: Speaking the Same Language
Module 5: Understanding the P4C Model: The Response to Intervention Pyramid (RtI)
Module 6: Assessment within the P4C Model
Module 7: OT Skills for the Tip of the RtI Pyramid – Mediational Techniques and M.A.T.C.H. Strategies
Module 8: Promoting Sustainable Change through Knowledge Translation and Coaching

Table 3.
P4C Description of Measures.

Measures	Description	Frequency of Data Collection
Coach		
OT daily logs	Recorded services in all 3 tiers delivered by OT and requests for services from OT.	Continuous
Number of students receiving health service	Number of students receiving Tier 3 OT services	Continuous
OT Knowledge, Skills and Beliefs Questionnaire	Evaluates OT knowledge, skill and experience.	3 times
OT Perception of Effectiveness of Training Measure	Evaluates the effectiveness of training and mentorship provided.	1 time
OT Goal Attainment Scale	A reflective scale that examined the extent OTs feel they've achieved their goals in delivering P4C.	1 time
OT Focus Groups	Designed to describe the OTs' experience in the project	2 times
Educator		
Educator Knowledge Questionnaire – All Educators in the School	Evaluates educator knowledge, skill and experience.	4 times
Educator Knowledge Questionnaire – Educators with a P4C service recipient in their classroom	Evaluates educator knowledge, skill and experience.	3 times
Strengths and Difficulties Questionnaire (SDQ)	Educators' observations of student's behaviour.	3 times
School Function Assessment (SFA)	Educators' judgement of student's participation at school.	3 times
Student		
Movement Assessment Battery for Children (MABC)	Standardized, norm-referenced measure of child's fine and gross motor functioning.	1 time
Parents/Caregivers		
Demographic Questionnaire	Captures demographic information about the child.	2 times
Parent Knowledge Questionnaire	Evaluates parent knowledge about coordination difficulties.	2 times
Strengths and Difficulties Questionnaire (SDQ)	Parents' observations of child's behaviour.	2 times
Participation and Environment Measure for Children and Youth (PEM-CY)	Examines child's participation in various environments.	2 times

Developmental Coordination Disorder Questionnaire (DCD-Q)	Assesses child's coordination issues with activities at home.	2 times
Other:		
Stakeholder Interviews (N= 51) (including: health managers, professional practice leaders, care coordinators, OTs, school board administrators, school principals, educators, and research project personnel).	Designed to increase understanding of how implementation was experienced.	1 time

Table 4
DSB Description of Stakeholders

Stakeholders	*N*
Administrative Lead	*N* = 1
Scope of the role includes: • the board improvement plan for student achievement • school innovation plans for student achievement and wellness • mental health strategy • First Nation Métis and Inuit education • special education • Special Needs Strategy • transition planning • English as a second language • Co-Op Support: job coaches, Equity and Inclusive Education Strategy, Safe Schools Act (section 23)	
Research Team	
University Faculty with doctorates and extensive expertise in inclusive and special education.	*N* = 2
Research Associates comprised of a post–doctoral researcher and two doctoral candidates with degrees and interest in special education, inclusion, and disability.	*N* = 3
Administrative Support Part–time administrative support was available in the final year of implementation	*N* = 1
Students	
Total Number of students within the 40 schools	*N* = 3, 230
Total number of students in self–contained classrooms (all with IEP's)	*N* = 186
Number of self–contained classrooms: Elementary	*N* = 5
Number of students in self–contained classrooms: Elementary	*N* = 35
Number of self–contained classrooms: Secondary	*N* = 18
Number of students in self–contained classrooms: Secondary	*N* = 151
Coaches Including 2 coach co-ordinators	*N* = 15
Teacher Partners 25 initial classroom teachers (K-12) who had one or more students moving into their class from self-contained classes, with the following breakdown: • 7 secondary • 14 elementary • 2 special education • 3 not specified	*N* = 38
Community Parents, caregivers, school employees*, peers*, health* and other professionals* in the school community	

**Note*: Number of community members is undetermined

Table 5.
DSB Description of Measures

Assessment	Description
LEQ	The LEQ is a 37–item questionnaire that surveys methods educators frequently use for student engagement. Methods include goal directed learning, task selection, teacher responsiveness, intensive teaching and planning the learning environment (Keen, Pennell, Muspratt, Poed, 2008).
KNSQ	This 38–item scale evaluates educator knowledge about special needs, disability and acquired brain injury.
TPLE	The TPLE, a 38–item questionnaire, was created by researchers with questions adapted from the KNSQ and Factors of a Supportive Learning Environment Survey (Proactive Information Services, Inc. (1998) to identify the structures and procedures the school has in place to facilitate supporting all students.
MTAI	Collects demographic information as well as educators' beliefs (e.g., perspectives, classroom practices, expected outcomes) and features (e.g., barriers, preparedness) of inclusion (Stoiber. Gettinger, & Goetz 1998).

Learning and Engagement Questionnaire (LEQ)
Knowledge of Special Needs Questionnaire (KNSQ)
Teacher's Perceptions of Learning Environment, Knowledge and Social Acceptance (TPLE)
My Thinking About Inclusion Survey (MTAI)

Table 6.
Contextual affordance table

Contextual Affordance	**P4C**	**DSB**
	C_A. Institution	
1. Institution Mission	• Situated within the School of Rehabilitation Science (SRS), at McMaster University, the mission of SRS is to study rehabilitation topics in order to advance health care and research (McMaster University, 2016). • Also conducted in partnership with *CanChild* Centre for Childhood Disability Research. *CanChild's* mission is to support the lives of children and youth with developmental disabilities through research, developing partnerships and knowledge translation. *	• Situated within the school board, the mission of DSB is on creating positive, innovative and inclusive learning environments for children, with a focus on equity and sustainability to maximize student outcomes (DSB, 2016). *
2. Project Visions	• P4C envisioned developing partnerships between the health care providers and schools to reduce lengthy wait-lists, to increase student access to OT services, build educator capacity by redefining the roles of the OT and client (e.g., child) and to aid the identification of students who may not have otherwise qualified to receive services. (Missiuna & Hecimovich, 2015).**	• To improve student equity in education within the schools under the governance of the board. • DSB envisioned facilitating inclusion within their board by transitioning students from segregated to general classrooms (DSB, 2016) and build educator capacity about teaching inclusively.**
3. Organizational Partnerships	• Originated at the University level then branched out to develop organizational partnerships and school access. • Prior to launching P4C, project drivers sought and received involvement from the Ministry of Health and Long–Term Care (MOHLTC), the Community Care Access Centres (CCAC), the Ontario Director	• Change in service delivery began as a single–site initiative in 30 elementary and 9 secondary schools within the board that later branched out to the University level from experts in inclusion at Brock University.

	of Special Education, four school boards including 40 participating elementary schools, the affiliated University (McMaster) and CanChild, Centre for Childhood Disability Research (Missiuna & Hecimovich, 2015).	
C_B. Stakeholders and Partnerships		
4. Implementing Investigators	• Health Services researchers at McMaster University partnered with the MOHLTC. Together, a central research team of 17 (table 1) was created that comprised: academics and therapists practicing in the disciplines of occupational therapy, speech and language pathology, physiotherapy, special education, the director of Patient Care Service at CCAC, a statistician, project manager, project coordinator, health economist and graduate and media design students (Missiuna & Hecimovich, 2015).	• The voice driving the service delivery change for DSB was the Board's Leadership of Education (e.g., Superintendent) who oversaw: the board's improvement plan for student achievement and wellness, school innovation plans for student achievement and wellness as well as mental health, special needs, equity and inclusive education strategies (description condensed and obtained from school board online directory, 2016).
5. Partnership Team Members	• Partnered with three CCAC CEO's (1. Hamilton, Niagara, Haldimand Brant; 2. Central West CCAC; 3. Toronto Central CCAC), Client Service Managers, the school board superintendents for which CCAC provides services to, as well as a business analyst, and researcher and advocate in special education.	• Partnered with a researcher and advocate in inclusion at Brock University to collaborate about methods to measure the change when implementing a new service delivery model (P.B., personal communication, April 28, 2015). This partnership resulted in the creation of a small research team consisting of two expert faculty members and three researchers (one with a PhD and two doctoral students) who held degrees in education and were interested in inclusion. One part-time administrative support person was hired during the second year and researchers who specialized in research methodology were contracted throughout to support data analysis.
6. Key players	• *Coaches.* Occupational Therapist coaches registered with the College of Occupational	• *Coaches.* DSB coach "*partners*" were certified teachers who were hired for their knowledge and

	Therapists of Ontario. • *Educator partners.* Over the two-year project, elementary school educators participated and engaged with a job–embedded coach once a week (Missiuna et al, 2017; Missiuna & Hecimovich, 2015). • *Students & Caregivers.* Caregivers of all children in the school were notified about the presence of the OT and informed consent to receive OT services via this new service delivery model was obtained (McMaster Research Ethics, 2012; Memorandum of Understanding, 2013). Students with fine motor, gross motor and/or comorbid attention challenges that interfered with learning were identified via existing CCAC waitlists. • OTs maintained accessibility and availability to speak with caregiver and other members in the students' community of learning such as the Identification Placement and Review Committee (IPRC).***	experience as it was related to literacy or special education (DSB Job Description, September 2013). • *Educator partners.* At the beginning of the school year, DSB educators were assigned a coaching partner and student from a self-contained classroom with an exceptionality (e.g., an intellectual disability, developmental disability, physical disability or autism; P.B., personal communication, April 28, 2015). • *Students & Caregivers.* Only caregivers of children in self-contained classrooms were advised (via IPRC meeting) about the transition to inclusive education and about how their students would be supported differently (P.B., personal communication, April 28, 2015). • All (N = 186) students were identified to have a physical, developmental or intellectual exceptionality (A.K, M.P., personal communication, November 8, 2016).
C_C. *Financial Resources.*		
7. Funding	• P4C researchers received substantial funding from the MOHLTC and MOE to increase the delivery of OT services in the schools. • Finances were budgeted accordingly over the two–year span to support the research and wages of research coordinators, research assistants, and mentors. • Assessment costs (e.g., Movement ABC, Henderson & Sugden, 1992), OT materials, training, knowledge translation and dissemination	• As the Ontario MOE sanctions segregated education, school boards decide whether or not to implement it. It was the decision of DSB to re-allocate their board's funding to support inclusive education board–wide. In doing so, the expenses of coaches, materials, time and training were captured under the board's existing budget. • Only a fraction of the budget ($\leq$1% of the funding that P4C received) was provided to researchers at Brock University to support the research portion

	materials and costs, and participation incentives for educators and OTs were financed (Memorandum of Understanding, 2013).	and offset research and knowledge dissemination costs (A.K, M.P., personal communication, November 8, 2016).
C_D. Environmental		
8. Implementation ***Communities***	P4C took place in a large urban population centre and DSB as a small urban population center. Table 5 compares the demographic information of the communities involved for both projects. On average, the percentage of immigrants living in P4C communities was 4 times greater than in DSB communities with a slightly higher likelihood of holding a post–secondary degree or education. Despite slightly fewer adults not holding a post–secondary degree, the unemployment rate was lower for DSB communities with on average slightly fewer low–income living individuals (Statistics Canada 2013). On average there were also marginal differences observed between the communities with respect to home ownership and number of children per family.	
9. *Implementation* ***Schools.***	• At the school board level, P4C involved 3 school boards that fell under the jurisdiction of receiving community health OT services from the project partnering CCACs (Missiuna & Hecimovich, 2015). • Within those boards, 40 schools were selected based on the number of students in those schools with high priority needs, who were on active caseloads, or wait-listed to receive OT services. • Of these children, 38% had an Individual Education Plan (IEP) and 14% were identified with exceptionality (Missiuna & Hecimovich, 2015).	• As DSB chose to move from segregated to inclusive education, all 39 schools within the board were included for this change in service delivery. • In these schools, 186 students were transitioned from segregated to inclusive classrooms. Of these students, all had an IEP and were identified with either a developmental or intellectual exceptionality (A.K, M.P., personal communication, May 2, 2017).

*Institution Mission: The missions and visions associated with each participating school board in both projects were also examined and are outlined in table 2.

**Project Visions: P4C and DSB both envisioned and utilized Universal Design for Learning (UDL) and Differentiated Instruction (DI) strategies to build educator capacity.

*** The IPRC is comprised of school board personnel who determine whether the child meets the criteria for exceptionality classroom placement (Bennett, Dworet, & Weber, 2013).

Table 7.
Mission and Visions of each institution

Institution Mission and Vision	
P4C	DSB
SRS Mission: "The School of Rehabilitation Science aims to provide exemplary educational programs for students in occupational therapy, physiotherapy, speech language pathology, rehabilitation science and health management. The School will contribute to the advancement of health care in general and rehabilitation science in particular through excellence in collaborative research and service initiatives." **SRS Vision:** "aims to provide outstanding leadership in rehabilitation science at the national and international levels through continued expansion of innovation in education and research as well as increased commitment to service partnerships with clients and rehabilitation providers." ***CanChild:*** A research centre dedicated to generating knowledge & transforming lives of children and youth with developmental conditions and their families. **CCAC**: "Outstanding care—every person, every day."; "To deliver a seamless experience through the health system for people in our diverse communities, providing: equitable access, individualized care coordination, and quality health care."	"Engage Inspire Innovate …Always Learning. We will create positive, inclusive learning environments. We will maximize student outcomes. By valuing our students, our staff, our families, and our communities. Using principles of character, equity and sustainability."

Table. 8
Implementation communities

Research case	Board	Census population	Ethno & cultural diversity (immigrants) (%)	Percentage of people with a post–secondary education (%)	Unemployment Rate (%)	Low income 18-64 years of age (%)	Home owners (%)	Couple with children average family size	Lone parent average family size
P4C Large Urban Population Centers	Hamilton Catholic	509, 635	24.5	50.9	8.7	15.7	68.5	4.0	2.7
	Halton	495, 440	25.9	49.9	6.3	4.8	83.1	4.0	2.6
	Peel	1, 289, 015	50.5	55.8	8.9	7.9	78.2	4.3	2.9
DSB Small Population Centers	Region 1	57,885	7.3	45.3	5.7	7.0	79.2	4.2	2.6
	Region 2	73, 480	8.4	44.2	5.5	10.2	75.7	4.1	2.6

*Data based on the latest Census Canada (National Housing Survey) findings (2011)
**Population centres have been divided into small– (population of between 1,000 and 29,999), medium– (a population of between 30,000 and 99,999) and large urban–population centres (a population of ≥100,000; Statistics Canada, 2017). For the purposes of this research, P4C can be described as a large urban population centre and L4A can be described a small population centre.

Table 9
Examples of Project Driver and Community Mechanisms–A Quote Selection

Mechanisms	Quote Selection			
Project Driver Mechanisms	P4C	Reference	DSB	Reference
Professional Training	"P4C improves individual outcomes for children with DCD regarding participation and behaviour…"	McMaster REB application, 2012, p6.	"Coaches and teachers will deepen their understanding of Differentiated Instruction and Universal Design for Learning within the regular classroom setting through the use of the inquiry framework".	School board website, 2014
	"…the OT will work closely with teachers in classrooms to help explain the reasons for a child's coordination difficulties and offer suggestions/strategies that may improve the child's participation in the classroom."	McMaster REB application, 2012, p9.		
	" …parents of younger children who were identified through observation by occupational therapists agreed to receive the P4C health care service…"		"The role of the coach needed to be a job–embedded position where both people worked on the Collaborative Inquiry Cycle: Plan–Act–Observe–Reflect."	Inclusive Education Canada, 2015
	"Based on data collected by the health care region during the referral process, many of the children in the waitlist group were presumed to have significant motor challenges and, probably, to have DCD."	Missiuna et al., 2017, p.8	"Increase the amount of time students with the following exceptionalities spend in the regular classroom participating in purposeful academic and/or social programming: Intellectual: *Developmental Disability and Mild Intellectual Disability*, Communication: *Autism*, Physical: *Physical Disability*, and Multiple: Multiple Exceptionalities."	DSB Strategic Plan, 2012-2016.

	"If the occupational therapist had not been present in these classrooms, working collaboratively with educators, the OT-identified children may never have been recognized and referred and certainly would not have received occupational therapy service in a timely way".	Missiuna et al., 2017, p.9		
	"The P4C model contributed to an occupationally just system, where each child had equitable access to the support needed to participate in valued occupations at school."	Missiuna et al., 2017, p.9		
Perspectives & Experiences	"P4C therapists are occupation-centred and focus on discovering solutions, regardless of diagnosis, to improve children's occupational performance"	Missiuna et al., 2017, p.5	"Learning for All is the title of a document from the Ontario Ministry of Education. This document guides the work of district school boards in our province for all students. The foundation for work for all students is based on some articulated beliefs including '*All students can succeed*' and '*Classroom teachers are the key educators for student's literacy and numeracy development'*. We have used these beliefs to shape the supports required to bring inclusion of students to scale.	Inclusive Education Canada, 2015 (Q&A with the DSB's Superintendent)
	"The acronym 'P4C' was used to reflect the principles of this evidence-based model in which the Partnership between the family, occupational therapist, and educator builds Capacity through Collaboration and Coaching in Context (4Cs)."	Missiuna et al., 2017, p.2.		
	"An implementation science framework was used for thematic content analysis of the interviews and focus groups."	Missiuna & Hecimovich, 2015, p. 54.	"If we honour equity and inclusion throughout all of our schools, then we will value input from families, community agencies, and the students themselves along with the school team to find the pathway of learning that	DSB Strategic Plan, 2012-2016.

	"This study was supported by the Canadian Institutes of Health Research (Grant # KAL 86792) under the Knowledge to Action program which requires funding to also be provided by local decision-makers."	Missiuna et al., 2012, p. 1451.	works best for each student. We will utilize current research to find the most effective practices to support our learners in an inclusive classroom setting as we prepare them for communities who will welcome their unique talents and abilities"	
	"P4C is founded on a strong conceptual and empirical foundation (Missiuna et al., 2012, this issue). From the start, it was developed and tested using participatory action research methods that brought together over 60 multidisciplinary stakeholders, including school board administrators, educators, health care providers, families, decision-makers and policy-makers (Missiuna et al., 2011)."	Campbell et al., 2012, p. 53.	"In keeping with DSB's Strategic Plan, I also wanted coaches and teachers to leverage technology (largely iPads) to enhance learning of our students"	Inclusive Education Canada, 2015 (Q&A with the DSB's Superintendent)
Professional Designation & Authoritative Voice	"Cheryl Missiuna, Ph.D., OTReg (Ont) is a Professor in the School of Rehabilitation Science and a Scientist with CanChild, Centre for Childhood Disability Research and the Infant and Child Health Lab. She also holds the John & Margaret Lillie Chair in Childhood Disability Research. Cheryl's teaching and research interests focus on children and youth with special needs. Cheryl researches models of health service delivery that encourage health promotion, early	Faculty Description, McMaster University (2014) Missiuna & Hecimovich, 2015.	1	DSB webpage, 2016.

identification, the creation of supportive environments and prevention of secondary physical and mental health consequences for children with developmental coordination disorder. Cheryl's interest in knowledge translation has led to the development of educational materials that facilitate knowledge transfer and uptake by different audiences including children and youth, families, teachers, primary care physicians, health professionals, policy and decision-makers."		Brock University webpage, 2017
"Cathy Hecimovich, Chief Executive Officer of the Central West Community Care Access Centre (CW CCAC)"		
" *CanChild* is housed within the School of Rehabilitation Science at McMaster University and is the hub in an academic network of international scientists that conduct applied clinical and health services research concerning children and youth with a variety of developmental conditions. As a world-leader in the field we strive to generate innovative knowledge and translate our research in an accessible way that is relevant and meaningful to those who need it most: families and health care	*CanChild*, 2016	

	providers."			
Model of Service Delivery	"…(P4C) is a service delivery model that facilitates developmental surveillance and screening, thus supporting identification of children who require rehabilitation services to participate at school."	Campbell et al., 2016, p. 200	"…creating and promoting positive, inclusive learning environments". "supporting and restructuring special education practices to promote full inclusion of all students"	Bennett et al., 2014, p. 8.
	" This paper describes an innovative, evidence-driven occupational therapy school health service delivery model for children with DCD. The model has been trialed and refined within the early stages of a participatory action research project (Missiuna et al., 2008-2011). As recommended by the Medical Research Council, design…."	Missiuna et al., 2012, p. 42	" The mandate of the Coaches will be to work with classroom teachers to arrive at a problem of practice driven by student need, which will then be applied to the collaborative inquiry framework to support students with exceptional learning needs (Katz & Dack, 2013)." "The Learning for All Coaches will be involved in journaling and focus groups with researchers from Brock University throughout the course of the first two years in order to reflect over time on their practice and share strategies for successful inclusion. This partnership provides insight into the innovative process and practice of this exciting transition and opportunities for professional development for coaches and teachers."	Bennett et al., 2014, p. 9.
	"…the P4C model of service delivery, the partnership focuses on capacity building through collaboration and coaching in context."	Campbell et al., 2012, p.52		
			" DSB has developed a K–12 coaching model to build teacher capacity in order to foster positive inclusive learning environments board wide. Partnerships have been established between coaches and classroom teachers to work through the collaborative inquiry cycle.	DSB webpage, 2016.

			The goal of the work is to build greater teacher capacity in the successful inclusion of all students. Principals from the Learning for all Document including Differentiated Instruction and Universal Design for Learning are the foundations of this work."	
Implementation Variables	"P4C is an innovative, **evidenced-based**, integrated approach to care; currently in its 2nd year of study funded by the MOHLTC in partnership with the CW CCAC"	P4C Summary, Presentation Slide for Special Needs Strategy Communication (2014)	"The focus of the partnership was to be based on the key elements of the Learning for All K-12 document: differentiated instruction, universal design for learning, assessment for, and of learning, in conjunction with an IEP."	Inclusive Education Canada, 2015 (Q&A with the DSB's Superintendent)
	P4C is based on a **response to intervention** pyramid; provision of service is **needs-based**; students with higher needs receive increasing level of support"		" … is designed to give teachers information to modify and differentiate teaching and learning activities"	Learning for All Document, 2013, p. 27
	"P4C aligns with the 3 identified goals of the Special Needs Strategy." (accommodation, differentiated instruction, universal design for learning)		"it (UDL) reflects awareness of the unique nature of each learner and the need to accommodate differences, creating learning experiences that suit individual learners and maximize their ability to progress"	Learning for All Document p. 14
	"OT contacts parents directly to seek health care consent for individualized OT services"	Missiuna & Hecimovich (2015, p.19).	"…teachers will be able to learn the skills needed to modify their programming"	Kipfer (2015, p. 19)
			"Inspiring with evidence-informed teaching and learning."	DSB Board Vision, 2012.
Community Mechanisms	"They (students) got to know her over her visits and they got to trust her, whereas before they were very	P4C Educator	"..and, it's not even in my class it's (inclusion) spreading through the school"	L4A Educator

Community Culture	uncomfortable in the classroom and didn't feel like they belonged or they felt possibly that they were dumb or they weren't able to express what they wanted to do…"		" using training and collaboration strategies so partnering, elbow talk"	L4A Coach
	"It's not what I expected because I was so use to the old model and now I am use to this model and I am amazed at what role I play in the school, I am a consistent member. Not what I felt like in the previous model. I had a role with the child and now I have a role with the school."	P4C Coach	"I would say that a lot of it is pointing to the great things that teachers are already doing with all of their students, it's kind of like what's good for all that they're already doing it, and pointing it out in that way and doing a lot of community building"	L4A Coach
	"The sense I got from training was we would be more part of a team and work with teachers, but my role of the school is consistent with what I got from the training. I have a much better time to connect with teachers despite the increasing parameter changes"	P4C Coach	"…nobody volunteered themselves to work with me. I just kind of said 'hey, I am here, why don't we kind of work together, I am going to be in your classroom for a bit'. Even in my case, and I think I have one of the best situations, I still didn't have teachers volunteer and say 'hey I want to spend a lot of time with you', it was more me kind of worming my way in."	L4A Coach
	"If the principal is on board the staff are too, the principal invited OT to staff meeting and other school the principal would keep forgetting, and if the principal is not passionate about it the rest aren't"	P4C Coach	" some teachers didn't even realize they had a student with exceptionalities that would have deemed them to be in other places once upon a time...so they were angry about that…. but their attitude was like 'well, if I can't have an EA, than I guess you'll do'.	L4A Coach
			" ..I had an administrator who just didn't know how to get the ball rolling so I suggested that we have a luncheon …"	L4A Coach

"I've been welcomed in all of my schools, schools open, ISSP is great…"	P4C Coach

Table 10
Summary of the Primary Project Driver and Coach Competencies for each Research Case

College of Occupational Therapists (OT) of Ontario Professional Competencies*	Ontario College of Teachers Professional Competencies**
1. Expert in Enabling Occupation 2. Communication 3. Collaboration 4. Practice Manager 5. Change Agent 6. Scholarly Practitioner 7. Professional	1. Commitment to Students and Student Learning 2. Professional Knowledge 3. Professional Practice 4. Leadership in Learning Communities 5. Ongoing Professional Learning

***** Descriptions of OT competencies can be found at:
https://www.caot.ca/document/3653/2012otprofile.pdf
**Descriptions of teacher competencies can be found at:
https://www.oct.ca/public/professional-standards/standards-of-practice

Table 11

Summary of Vision Statements for participating School Boards in each Research Case

Research Case	Board	Number of schools within the Board	Number of Research schools	Board Vision
P4C	Hamilton–Wentworth Catholic District	Elementary: 48 Secondary: 7 Total: 55	10 Elementary	"Learners from Hamilton-Wentworth Catholic Schools will demonstrate: - knowledge and practice of their Catholic Faith - the capability of nurturing a strong family unit - esteem, respect and responsibility for self and others - academic competence - the ability to listen accurately and express knowledge clearly - independence, critical thinking and effective problem solving - proficiency with technology in order to adapt to a challenging world - the values, attitudes and skills for effective partnerships - the ability to transform our society"
	Halton	Elementary: 76 Secondary: 17 Total: 93	10 Elementary	"Every student will explore and enhance their potential, passions, and strengths to thrive as contributing global citizens" This is centred around "Values-as a learning organization our actions will be guided by our values… Accountability Collaboration Equity Empathy Creativity and Integrity"
	Peel	Elementary: 197 Secondary: 43 Total: 240	20 Elementary	"We will help our students reach high levels of achievement. Our vision is to prepare each student for a successful future as a lifelong learner. To do this, we will: - create places to learn and work where staff and students are happy, recognized and fulfilled - engage all students and staff to achieve the high expectations of the Peel board - offer all students a range of learning programs to help them discover their passions and potential - be a leader in the use of technology to encourage creative and innovative learning - provide equity of access and opportunity for students and staff to learn, work and succeed - openly communicate as we welcome the involvement of all parents, staff and students in the diverse communities we serve"
DSB		Elementary: 31 Secondary: 9 Total: 40	All 40	"Engage, Inspire, Innovate ...Always Learning We will create positive, inclusive learning environments. We will maximize outcomes for students. We do this by engaging our students, staff, families, communities and our world. Inspiring with evidence-informed teaching and learning. Innovating through the creative potential of emerging technologies. Guided by the Principles of Equity, Character, & Stewardship".

The Pan-Canadian Joint Consortium on School Health, 2012
Figure 1. Comprehensive School Health Model

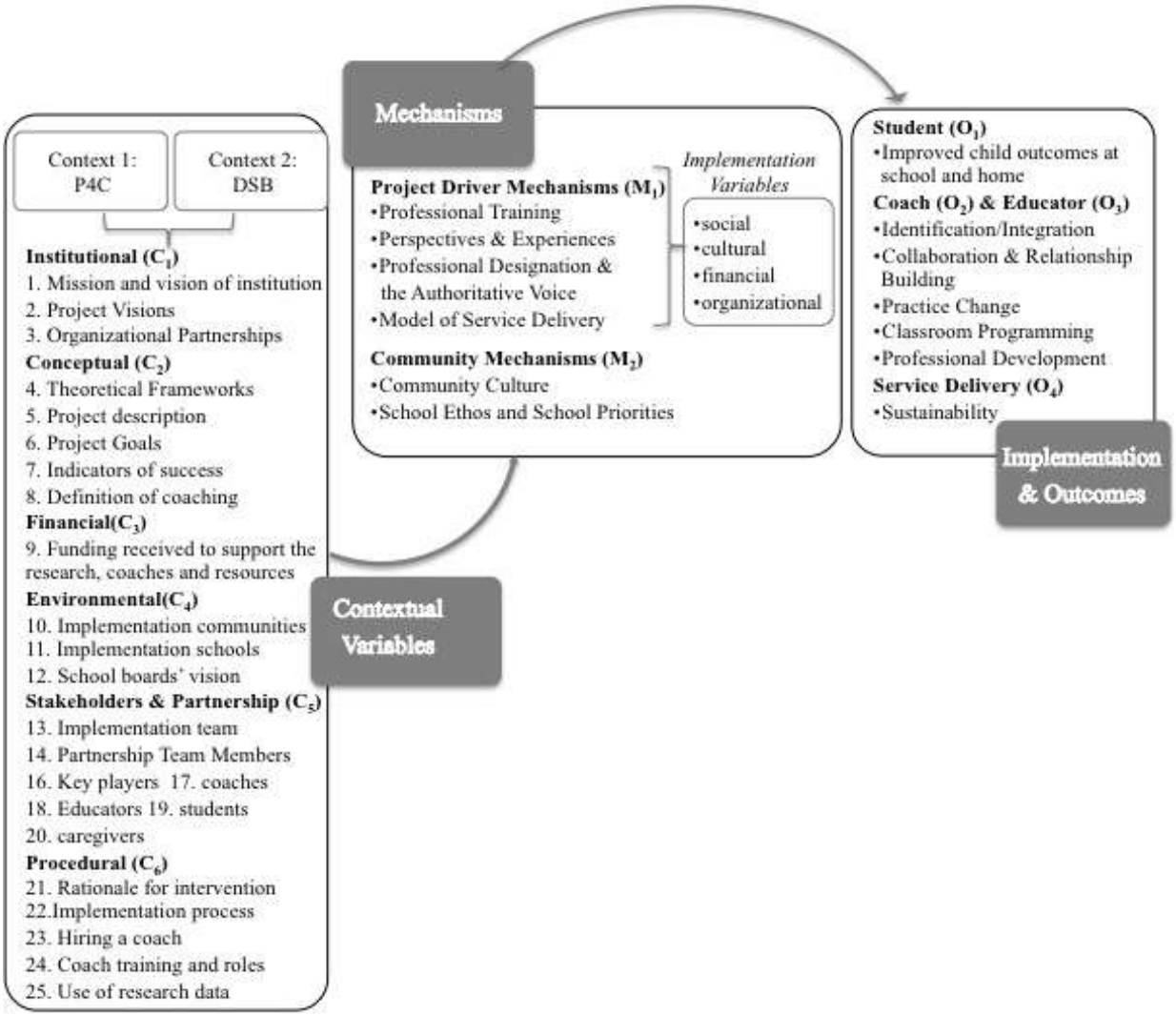


Figure 2. Initial CMO Map with 25 Variables

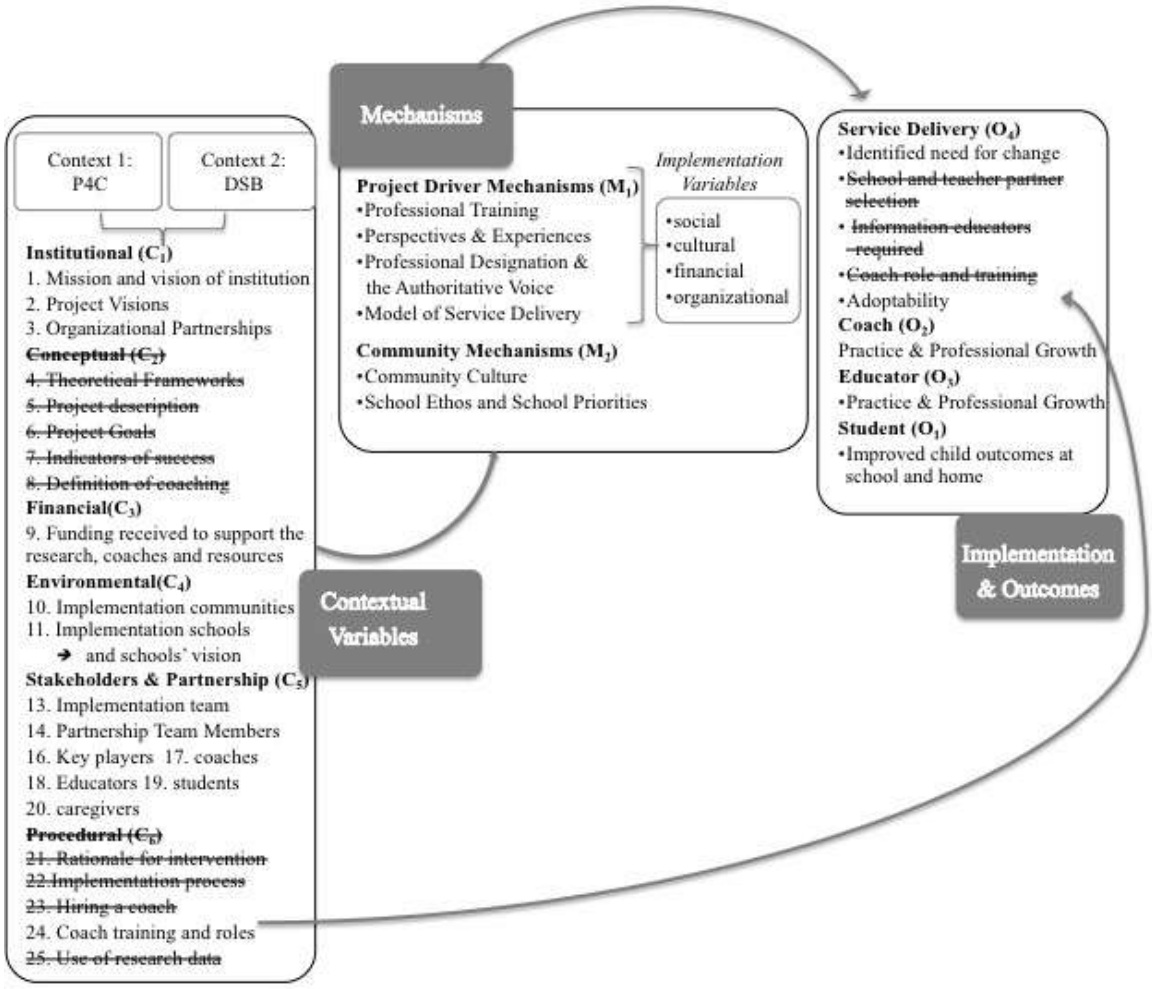


Figure 3. Process of Omitting Variables

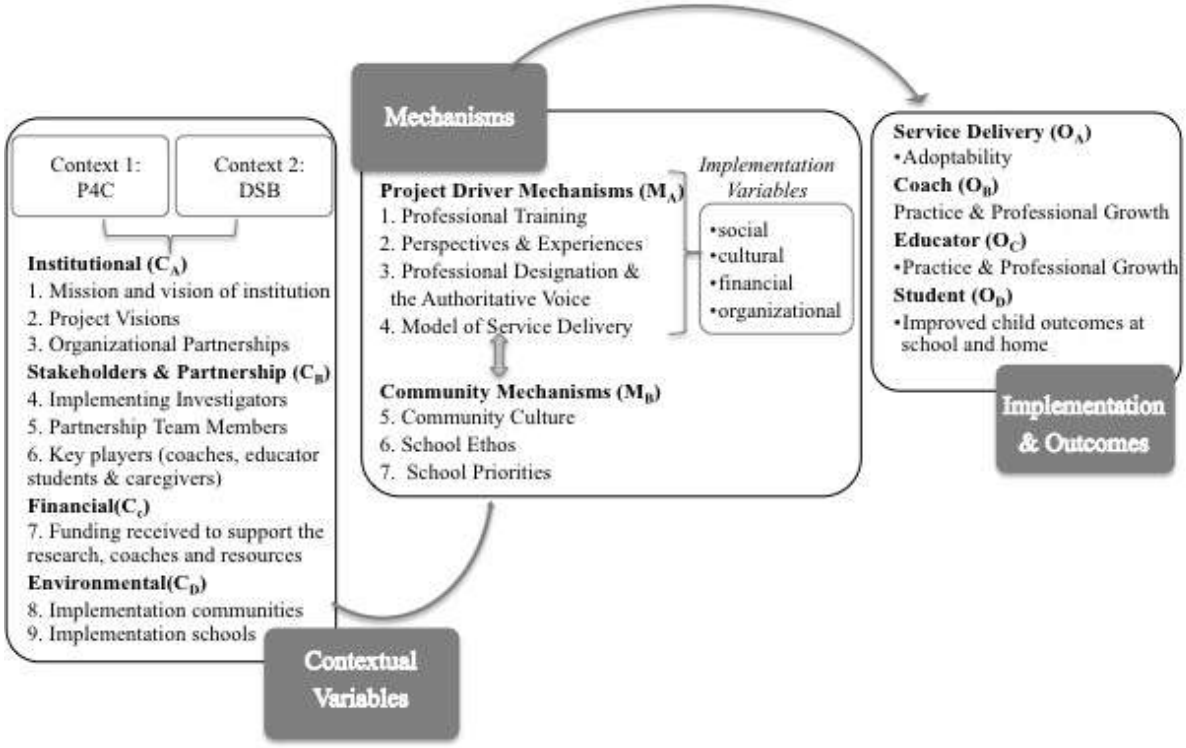
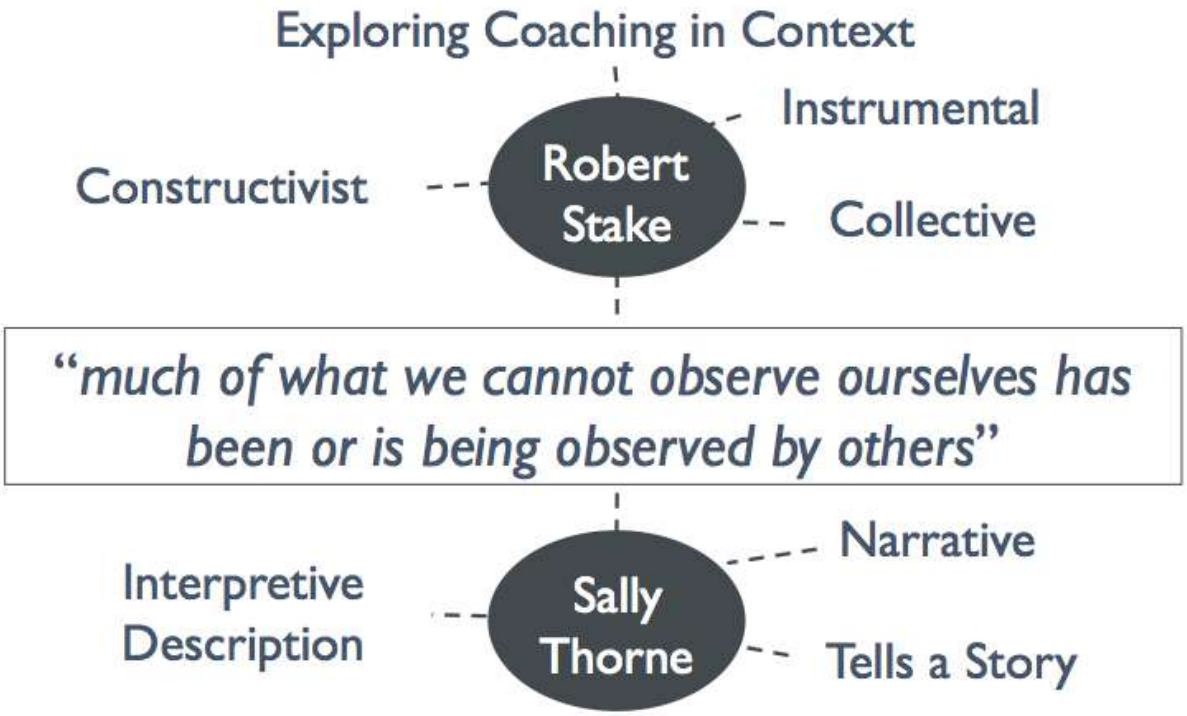


Figure 4. CMO Map



(Stake, 1995; Thorne, 2016)

Figure 5. Rationale for Integrating Stake and Thorne

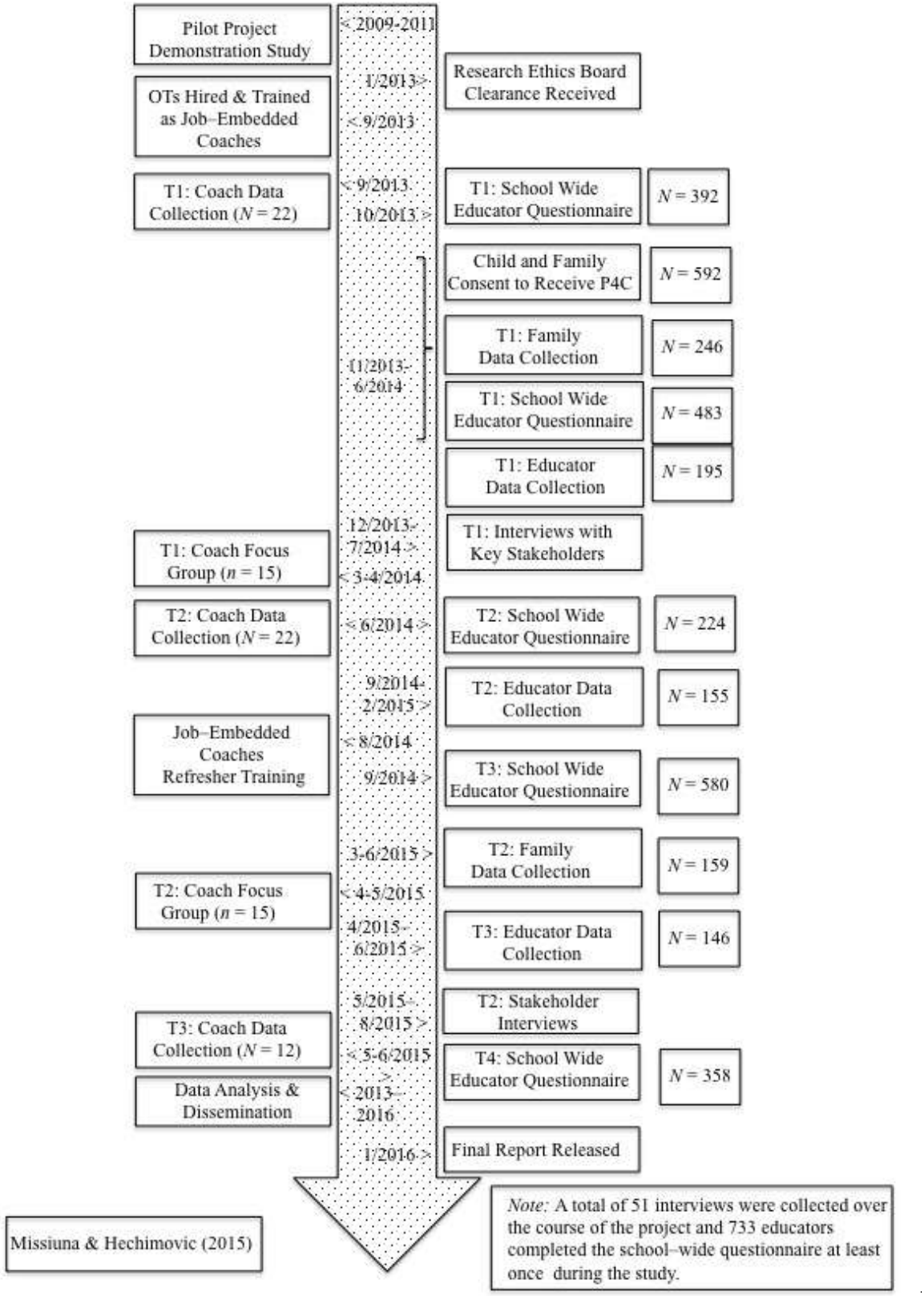


Figure 6. P4C Research Timeline

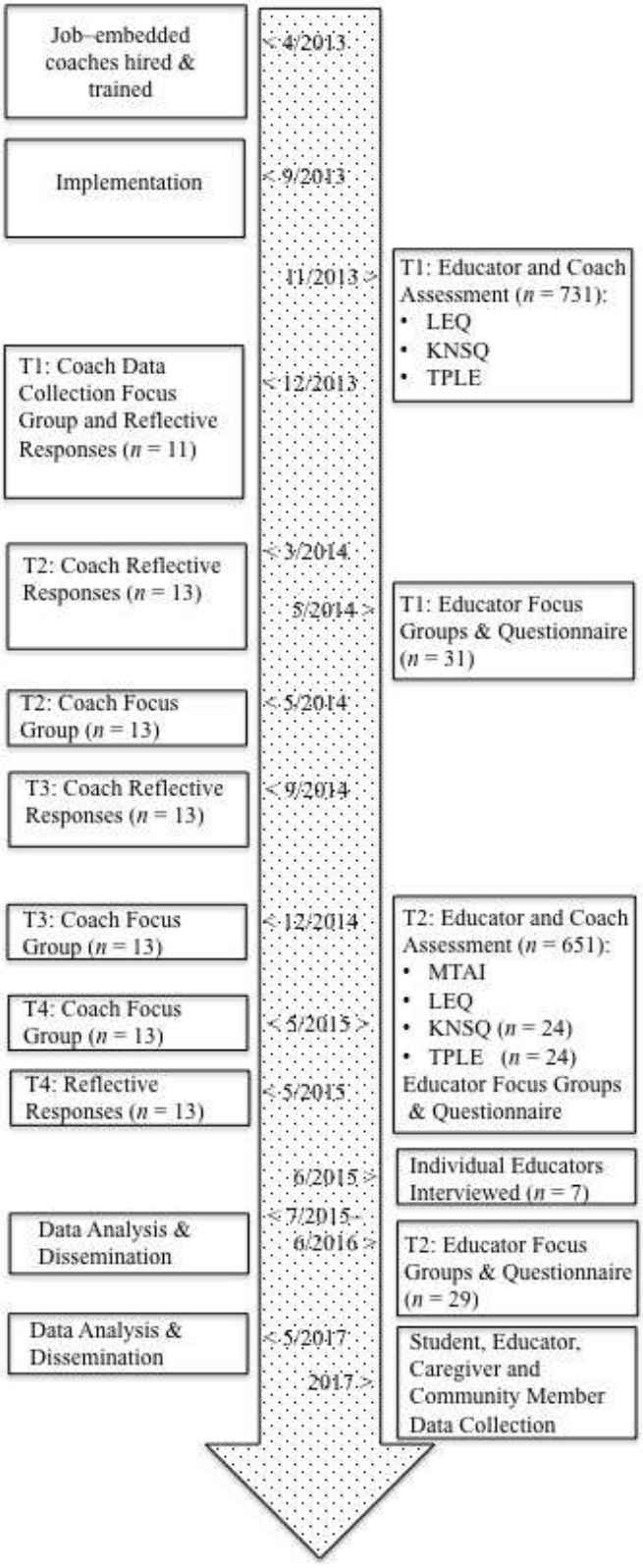
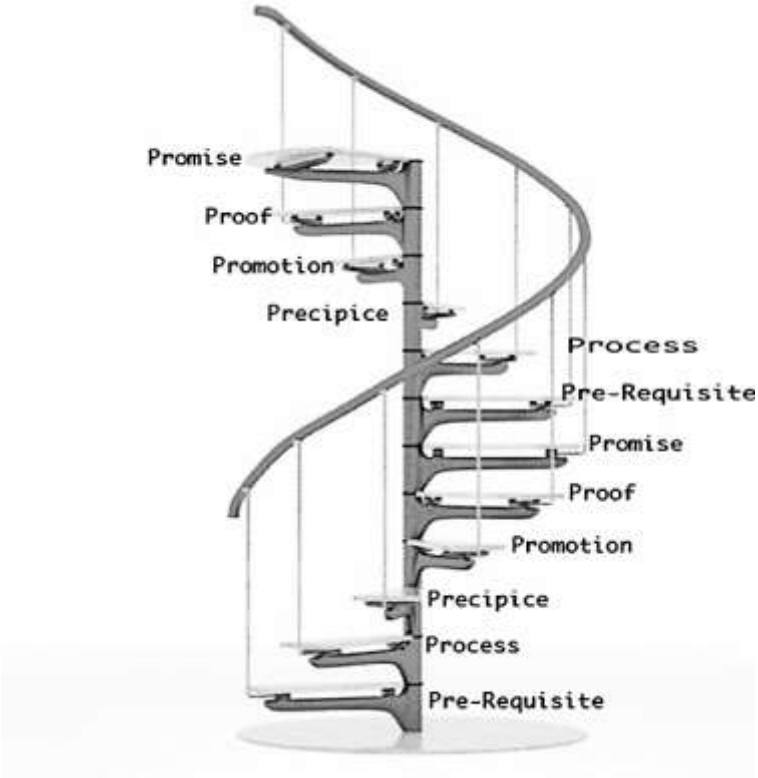


Figure 7. DSB Research Timeline

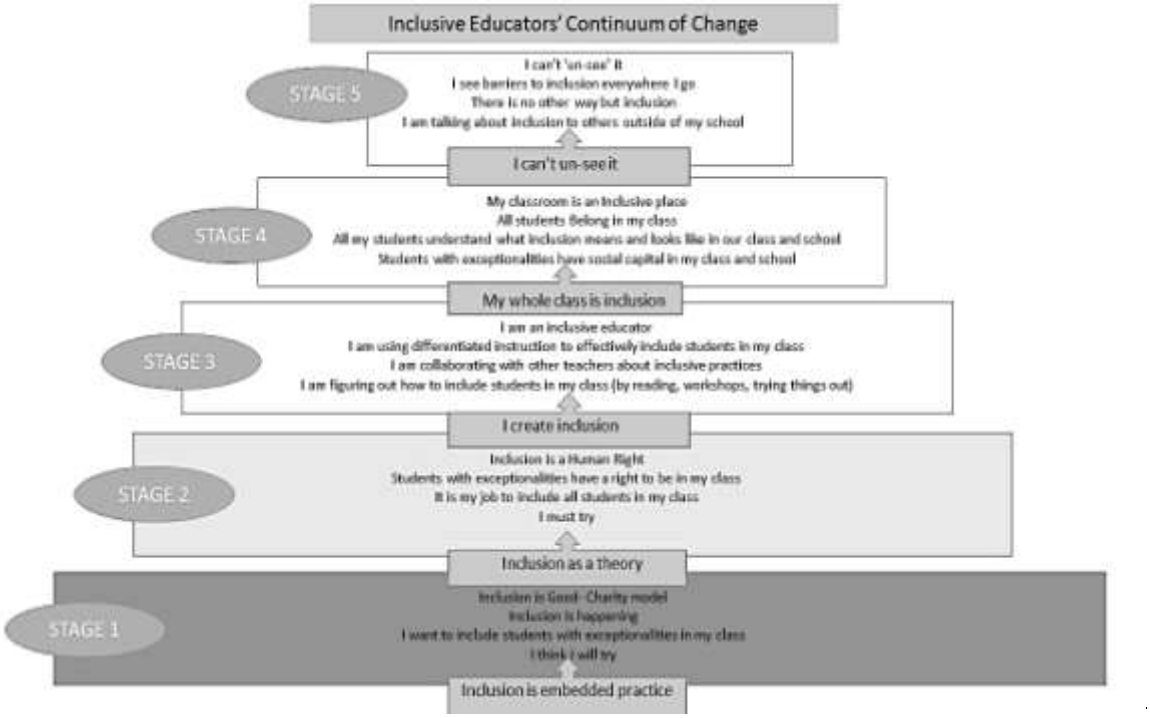


- Pre-Requisite
- Process
- Precipice
- Promotion
- Proof
- Promise

The six principles are iterative and should be re-visited each time a coaching interaction is initiated

(Gallagher et al., in press)

Figure 8. The Six 'P' Model: Principles of Inclusive Practice for Inclusion Coaches



(Somma, 2017)

Figure 9. Inclusive Educator's Continuum of Change

APPENDICIES

APPENDIX A

Paradigm	Ontology (What is Knowable)	Epistemology (Ways of Knowing)
Positivism/ Pos-Positivism	There is an objective reality.	Truth and final knowledge exists. Objective, valid, generalizable truths. **YIN**
Realism	The material and social reality that we interact with. **STAKE, MERRIAM**	No final truth, but improvement of knowledge.
Constructivism	Subjective Reality we create through lived experiences and interactions with others. **MERRIAM**	Knowledge is co-created between the researcher and the researched/their social world. There is no way to choose between interpretations. **MERRIAM**
Interpretivist (Social-constructivism)	Multiple Truths; reality is constructed and rooted in our interpretation of it.	**STAKE** Knowledge is co-constructed between the researcher and the participant. **THORNE**

(Creswell, 2007; Denzin & Lincoln, 2013; Greenhalgh et al, 2009; Harrison, Birks, Franklin, & Mills, 2017; Yazan, 2015)

APPENDIX B
P4C Teacher Email

The Partnering for Change occupational therapist at your school (INSERT NAME) has indicated you might be interested in participating in a short interview, approximately 20 minutes, to share your experiences with the Partnering for Change (P4C) model of service offered at your school the last two years. By way of introduction, I am a doctoral student at McMaster University and my research focuses on the educator's experiences during this service delivery change. I am interested to know what this model looked like for your school, classroom(s), and what it was like to have an OT as a resource. I believe educators are such an important voice throughout this process, and for service delivery to carry forward in this fashion we need to hear from all stakeholders about what works and/or what we can do to improve this service delivery in the future. If you're interested in having a (confidential and anonymous) conversation about your experience, I would love to hear from you. This is completely voluntary on your end. Please know that the school, OT's, principal and/or other administrators won't be made privy of your participation or responses. Your responses will be provided a code, and your name will not be used. I will use all information provided from educators who choose to participate in a thematic way to describe common themes and experiences.

I understand that this offer to converse was made prior to the current labour situation. I am still very interested in hearing from you and would be happy to arrange this in any way that is comfortable for you. If you remain interested in speaking with me about your experiences this year, I would be happy to arrange a time to telephone you. My schedule is variable but pretty flexible during the work days or outside of working hours on evenings or weekends. If you are interested, can you suggest a couple of days and times that work and we can arrange to chat via telephone. I am also flexible evenings and weekends.

Further, if you know of any other educators who might be interested in sharing their experience, please pass this opportunity to do so along!

Thanks in advance, I look forward to hearing from you.

Kathy Wlodarczyk, B.A (Psych.)., M.Ed.
Doctoral Candidate, School of Rehabilitation Science
CanChild Centre for Childhood Disability Research
McMaster University, I.A.H.S. Room 408
1400 Main St. W., Hamilton, ON L8S 1C7
Phone: 905.525.9140 x26410 Fax: 905.524.006

APPENDIX B (con't)

DSB Email

Dear Coach (insert coach's name),

Over the past two years you have been involved in a tremendous board–wide change to facilitate inclusion and we are so grateful for your participation and input as we've moved this initiative along. As you know we are keenly interested in determining all the factors that makes this model successful, as well as, areas for improvement. As this year and service delivery wraps up, we would like to find out how what the actual experience of L4A has been from the perspective of the front-line educator.

We are wondering if you can kindly forward the **below** email to your elbow–partner as a fairly informal process of seeking their **voluntary and confidential** participation. If h/she chooses to participate, h/she can directly contact us.

Thank you again for your ongoing participation.

Dear Educator,
Over the past two years you have been involved in a tremendous board–wide change to facilitate inclusion and we are so grateful for your participation. We've asked your elbow–partner to contact you on our behalf, as we want to hear from **you**! As researchers we are interested in determining all the factors that makes this model successful, as well as, areas for improvement. As this year as service delivery wraps up, we would like to find out how **what the actual experience of L4A has been from the perspective of the front-line educator**. We want to know what this elbow–partner/educational professional collaboration has been like, not with regard to any particular child or elbow partner– just the process. In order to truly identify whether this model is effective for facilitating inclusion, we specifically want to know what is this collaboration is like for teachers?

Sharing your experiences in a 20–minute interview (in person or via telephone call) with will help us understand how to better serve the learning needs of students with exceptionalities. Your decision to participate or not, will not be shared with your coach, and your responses will be kept confidential.

If you are interested in hearing more about this opportunity to share your experience, please contact Kathy Wlodarczyk at wlodarka@mcmaster.ca for more information.

Many thanks for considering this request,

Kathy Wlodarczyk, B.A (Psych.)., M.Ed.
Doctoral Candidate, School of Rehabilitation Science
CanChild Centre for Childhood Disability Research
McMaster University, I.A.H.S. Room 408
1400 Main St. W., Hamilton, ON L8S 1C7

Phone: 905.525.9140 x26410 Fax: 905.524.0069

APPENDIX C

Educator Interview Guide

Date:	**Location:**
Interviewer: **Kathy Wlodarczyk** **Start Time:** **End Time:**	**Interviewee (alphanumeric code):** **Gender: M_____ F_____**
Project: **P4C_____ L4A_____**	**Number of years (in months) involved:_____**

Thank you for agreeing to take part in this interview. As you know, the purpose of our interview is to learn more about your experiences with implementing the Partnering for Change model of service delivery in your school.

I want to assure you that everything you say will be kept confidential. We will not share anything you say directly with your colleagues or practice leaders, or with any teachers, school personnel, or parents that you worked with in your school.

We will prepare a summary of what you and the other educators share in these interviews. Anything that we might include in a presentation, report, or publication will be summarized so that no one will be able to identify what each person said. If we use any quotes from your interview, we will not use your name and will make sure that the quote can't be linked back you personally.

Please remember that you can choose not to answer any of the questions, and can do so by verbally indicating "*Pass".* Further, you feel free to end the interview/conversation at any time.

Is it okay if I audio-record our interview so that I don't miss anything that you've shared? I may also take some written notes while we're talking.

Before we start, do you have any questions?

Teacher Interview Questions

I will start by asking 3 quick demographic questions and then I will briefly tell you more about myself:

First, what is your role in the school (for example SERT, EA, classroom educator)?

Next, how many years have you been an educator?

And, how long have you been involved with P4C?

So as you may know I am a doctoral student at McMaster University and a research assistant at *CanChild*, the center for childhood disability research. I am talking with you today to inform my research. I am interested in what your experiences with this program and service delivery model are. And more specifically, I want to know what it is like having another professional available to you with the same/different training as a person to collaborate with about teaching students with various learning needs.

1. Can you please describe as detailed as possible a situation in which you experienced this inter/intra–professional collaboration or what it *looks like* to have a job–embedded coach?

2. As a teacher who has been in one of the schools receiving P4C/L4A can you describe some the challenges you faced?

   Prompt: how does overcoming these challenges compare to your experiences in previous years?

3. When considering the other professionals in your school community that you approach in times of seeking support, can you describe how your relationship with the OT/fellow educator compared?

   Prompt: what were some of the factors that are important in building an inter/intra–professional relationship like this one?

4. Can you describe a situation when you and your colleague problem–solved with one another about ways to improve this student's learning difficulties?

   Prompt: Perhaps describing a success story in the classroom might be useful to answer this question.

5. Seeing as you come from different/similar professional training, I am interested in whether this played a role in how you interacted with one another. For example,

the classroom setting may/may not be familiar to the OT/educator. Can you describe a situation that you incorporated the OT/educator into your daily classroom and routines.

Prompt: what are some important features about creating a professional relationship with someone new?

Prompt: what were some of the things you needed to learn about one another?

Prompt: was there an experience that made you realize this?

Prompt: what are some important characteristics or features building and inter/intra– professional relationship?

6. Being as detailed and specific as possible, can you please describe how having P4C/L4A in your school influenced your thinking or practice?

   Prompt: Can you tell me more, what did the OT/ educator do, say or show you that was influential?

   Prompt: Prompt: How has this impacted the students outcomes?

7. Have you shared anything you learned from implementing this service delivery model with other people, and if so, can you describe what you shared?

   Prompt: can you describe the experience that prompted you to share that message?

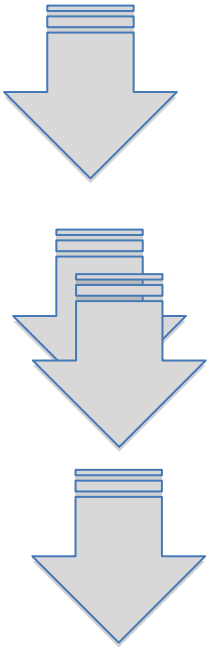
8. Finally, what does P4C mean to you?

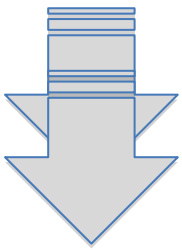
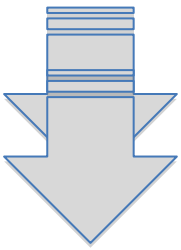
Thank you so much for your time today, is there anything about your experiences that you wish to share?

APPENDIX D

Contextual Features (Unit of Analysis)	**P4C**	**DSB**	**Assigned Codes**
Definition of Coaching	**"Coaching** is used as a specific technique during interactions. Coaching means that the therapist determines what the educator and parent already know and builds on their skills and knowledge by collaboratively problem-solving through the reasons for the child's difficulties, the rationale for trying the suggested strategies, modeling the strategies, supporting their application and generalization and monitoring regularly to ensure that strategies are still working."	"DSB developed a K-12 coaching model to build educator capacity in order to foster positive inclusive learning environments board wide. Partnerships have been established between coaches and classroom teachers to work through the Collaborative Inquiry Cycle". "The goal of the work is to build greater teacher capacity in the successful inclusion of all students. Principles from the Learning for All document including Differentiated Instruction and Universal Design for Learning are the foundations of this work"	Collaboration Expertise Problem solve Active learning Capacity building

APPENDIX E

Contextual Features for Comparison	P4C DATA	DSB DATA
Institutional • Mission and Vision of the overseeing institution and departments Conceptual • Theoretical frameworks • Project descriptions • Goals • Indicators of success • Definition of coaching Financial • Funding received to finance the research, coaches and resources Environmental • Implementation communities • Implementation schools • School culture and resources • School boards' vision Stakeholder and Partnership • Implementation team • Community partnerships • Key players • Coaches • Educator partnerships • Communication Procedural • Rationale for intervention • Implementation • Hiring a coach • Coach training and roles • Use of research data		

Outcomes	P4C	DSB
Student • Outcomes Coach • Experience and outcomes Educator • Experience and outcomes Service Delivery • Sustainability		

APPENDIX F

Example of Coding for P4C Interpretive Description
*****Note not all recounts are included in each example***

How was P4C delivered? What did it *look like?*	Interpretive Description	Educators' recounts of events and/or experiences	Subthemes	Main Themes
Snapshot of the problem and need to address knowledge educator capacity to better support students	*Prior to P4C, obtaining OT support was a process. It began with trying to interpret what developmental challenges were affecting a child's learning, if they were even developmental at all.*	"Without the OT it could have been a 2, 3, 4 year long process to get all the psychometric testing to see whether it (student's challenges) was a LD or an output issue. And, it turns out, it was an output issue".	Frustrating Long wait list Unable to identify problems to provide support	Long wait list Underprepared to provide support
	Then, educators were required to complete "*endless streams*" of paperwork for CCAC, only to find out that children were waitlisted for an OT.	"Filling out endless streams of paperwork for CCAC an sending it out for kids to go on waiting lists and that was pretty much [laughs] what the model delivery was, which was completely useless, right?"		
		"Prior to working with P4C we obviously had to go through the referral process and make sure we had the referral through the SERTs and there were you know long wait lists through CCAC in order to get occupational therapy"		
	Ms. Mitchell, a second grade teacher in a P4C partnership with an OT coach indicated educators met with CCAC twice a year merely to hear the names of the children who were still on the list. In the meantime, she irritably	"We would meet, you know, twice a year with CCAC but the only thing we would get out of that meeting was whose names were still on that list. You know what I mean? No strategies. What do you do in the meantime? And, if you were addressing those issues in meetings you were basically delivering a message, and that message was very frustrating for parents, right? Like, ' *Well yeah, we've put it (a referral) in but it's probably going to be 2 to 3 years before we really see anyone in here. And then, it's going to be like this little episode of 2 or 3 sessions. And in the meantime, we can try to these things but it's not as clear as what we should do*". So there was a big gap and it was not a very effective model".		

	described having to give parents the following very frustrating message: *"well, …we've put a request for services in but it will probably be 2-3 years before we really see anyone in the school, and then your child will receive a few therapy sessions, and in the meantime we can try a few things out, but unfortunately we aren't clear on what we should do".*			
Coaches' role in building capacity	*P4C was introduced to Ms. Mitchell's school for a two–year term and the change in service delivery was "thrown" at educators by their school principal. Initially teachers, were quite skeptical, anticipating that it would add to their workload.* *In the P4C model the OT really took everything on. For example, the OT approached the teachers to discuss what the support model should look like, and asked Ms. Mitchell how she could play a role in providing the resources*	"With my principals, they just throw things at ya'. They want you to *'do this'* and then *'do this'* and someone (another staff) doesn't want to do something that they (principals) just throw it at you. Sometimes teachers, we are a little uhm, skeptical…you know it's like '*ok, well how much work is this for me*?'. I will be honest". "It wasn't just another thing for teachers to have to do. That, made a huge difference because teachers bought into that". "She was the one who went to the teachers. She said, 'le*t me just come in, let me just come in and take a look'*. Or, she would do a lesson". "The OT, she took it on. She would go see the teachers. Like, I remember when she first started she had a couple of in-services at lunch just to describe what her role was and what she was going to be doing. Describing the whole P4C so that teachers were aware". "But the way she did it was 'I'm here to help you, or I'm here to give you suggestions. And, I'm not going to just give you suggestions, but I am going	Expertise Knowledge Skill Set Confidence Comfortable in practice changes Facilitated Improve IEP Collaborative support	OT expertise & Skill Set

teachers and the community needed. The OT held in–services at lunch, described her role, and created lessons for teachers, such as an art lesson, where she then observed and assessed fine and gross motor skills.	to come into the classroom and show you. I am going to do the lesson for you. They (educators) love stuff like that. We love when people do stuff for us. When people give us stuff and when people do stuff for us".
	"It looked like small group activities, working on letter formation and resources. Things we could buy that would help the kids. In ordering, we sat down the 4 of us- the 2 jk/sk teachers, the OT and myself (special resource coordinator) And she said '*if you want to work on this get these, these are really good for this*'. So with the printing it was set up and now what we do, is that there's a printing centre in the classroom. So the kids, as part of their day, will go to the printing centre and work on exactly what the OT recommended".
She facilitated setting up the structure in the classroom to make learning accessible and brought fine motor development back into kindergarten where it all begins and voiced that children "*can't write a paragraph in grade three if they can't hold a pencil*."	"Going into this year, she kind of facilitated those things that, those things that set the structure up in the classroom, and then leaving it for the teacher to be able to kind of carry on with understanding *'what did the fine motor group look like'* and *'how can I improve my program'".*
	"You won't have the problems later on and you aren't backtracking in education. You can't write a paragraph in grade three if you can't hold a pencil."
	"We've tried to set up like right from the beginning (kindergarten) the pincer grip, we are teaching these fine motor skills and they're being imprinted right from the beginning."
	"She did a couple of different things, I know that like there were some classes where she went in and she was the person who led the small group in the kindergarten classrooms or the primary classrooms".
In some classes the OT led small groups, while other times, she withdrew students to work with them outside the	"She pulled kids often in my grade 3 class she would pull them in small groups so she was pulling kids to do lessons in small groups"
	"She works really well in a small group like with 7 or 8 kids and does awesome one on one or just a couple of kids"

classroom.

"She would come in and watch the student off to the side. Sometimes she withdrew them to work with them outside of the classroom just so it was quiet and they could focus. Often when she came in after doing a bit of observation we would sort of step back while the kids were working on stuff and have a good 5 or 10 minute chat about what she saw or what she was thinking might happen in the future. It was actually a little bit of everything, She came to gym class one time with us, she came into the classroom, she withdrew the kids to work on some"

"A few kids actually have a fine motor program on the IEP as well, so she would get them set up and she also created a resource bank for teachers and EAs to sign out with fine motor activities to do with students. And—she made them up, they're custom. That was another way she worked in our school".

"She would be there with a letter of recommendation or meeting with parents or helping me with the wording on an IEP"

"She was instrumental last year in helping me get to get a little one in an IEP finally this year, it didn't happen for me last year but we kept advocating and it finally happened this year".

The OT was available to prescribe technology, check forms to ensure the referrals address the students' needs, and has reviewed psychoeducational assessments for the purposes of developing strategies for IEPs.

You know they don't give things away for free but they (administrators) seem to like the OT's letters because there are a lot of students that I felt would benefit from ET (technology) assistance (and have received it)."

"Just a few weeks ago she was able to get an iPad for one of my students. Now he does all of his work through an iPad".

" I just wanted her to, like you know, I like checks and balances, I just wanted her to see if I filled it (form) out correctly. Maybe a year ago I would not have had a clue of how, not that, I would have figured it out but it might have taken be forever."

"Just a few weeks ago she was able to get an iPad for one of my students.

	Now he does all of his work through an iPad".		
	"With her suggestion through another student because his printing was so large, now we are using special graphing paper. That's made a huge improvement. And scissors! I have special scissors for 3 students in the classroom. And then for the autistic student I work with, she also has a slate board, hand weight and special pencil. "We have 2 students in the classroom that have slate boards and special pencils so they can have a better grip. We have hand weights, 3 students in my class have hand weights."		
Ms. Mitchell learned how to differentiate instruction by integrating literacy apps applicable for all students, indicating that courses don't offer that kind of practical skill development.	"she suggested using like the dragon program so he wasn't having to write. She showed me how it worked and sat with him and did it, and I knew what to do, and that idea".		
	"She helped look through some apps, that the kids can use that are most applicable to them like the read and write app for google chrome that the kids have access to"		
	"I am much more comfortable now (implementing her suggestions)"		
	"Like you take courses, and you go through your specialist program. But those are meat and potatoes things. They don't really tell you. They tell you a utopia of the way it should be but they don't give you these sort of ...tools".		
	"Being a teacher, they (administrators) say here's the technology, which is great, but they don't really tell you how to apply it (laughs)".		
	She would come in and work with a small group of children. She would communicate with parents, sending work home to work on their fine motor writing skills. She would sorta' be a liaison between myself and the special ed resource teacher and principal too at times.	Enhancing educator communication and confidence	Liaison abilities
The OT not only acted as a *"liaison"* to support parents in	"I have one specific student who has been going to a developmental paediatrician and getting further assessment and so I was actually able to	Communicating with parents	

	accessing other professionals the student may benefit from, but she also provided *Ms. Mitchell with the "knowledge"* and *"confidence"* to have these conversations and navigate the health care system more comfortably	provide a letter and more specific observations in terms of the OTs perspective to give to the paediatrician, and give her some additional information." Like I felt less unsure, less stupid…I don't like to use that word. I felt more comfortable and sort of knew the steps of what I needed to do. She Sort of helped me navigate. When I first met her, you know, whatever problem we might deal with she would be like ok, we can do this, go here, try that. I didn't have that last year. "They're bringing a whole other set of skills that like I don't have". "She Sort of helped me navigate". "She came to the school resource team meeting. The official school board team meeting once a month to talk about her observations in a more formal setting". "she is physically present. Like she is definitely in the building. She goes out of her way to communicate with staff. She provides lunch and learns for us or at least puts the offer out there to see if anyone is interested and always checks in to see how students are doing. She is always willing to be present at school team meetings to provide her input about students"	Communicating with principals Communicating with special resource teacher Communicating via IEP	
Coaches' role in the Partnership	Ms. Mitchell expressed the partnership as *"a collaborative effort between two areas of expertise, one being education, and the other being occupational therapy".* In P4C, an OT's role has become more than just assessment. P4C was described to be about identifying signs outside the range of normal development that teachers don't necessarily	It's not mostly just talking, it's mostly working together I have had some of the most thought provoking conversations with both of the OTs who have been contacted with this program. Just about what we think is best to help kids. "Ok, let's try this, have you thought about that?" In pencil grip and letter formation… we had a meeting with a parent and this child's fine motor was terrible and the OT here at the school suggested a very specific program the exact path we should take. "I remember talking to the OT and saying, "you know, I've tried everything I can think of and I am not sure if there is any other way to approach it."	Communication Problem solving Expertise and Knowledge development Friendly Approachable Educator Growth OT Growth Inclusion of OT Dedication Flexibility	Expertise Collaborative

recognize.		
	" I remember her lying down on the carpet with him (student) and getting him to even just practice his upper body strength and getting his fingers moving while they were doing that; and I don't know (strength developing) exercises and they helped immensely. And I continued that when she wasn't there, and he began to be able to write his name and anything we asked him"	Collaborative Atypical development
	" …they are able to pick up on those early signs that a few may need a little more assistance in a certain thing or that something that is maybe a little bit outside of the range of normal development"	
	"It's also been great having someone in the building….when teachers or myself...we notice something about a student and are not sure if it's a concern yet and not sure if a concern that I should be approaching the parents or not. To have someone in the building that we can go and talk to, explain it to and have an expert opinion. Having that instant feedback and the ability to bounce ideas off someone who has the knowledgebase has been fabulous.	
	"She was able to gave us a name to an observation that we had made. She was able to give the name for what that behaviour was. She also provided us with developmental information that we can read so we knew more about it. And then when you have that piece, you see it more often….the pencil grip and the way kids were using scissors. You start to see it more and understand more of what the child is going through or what might be happening there."	
	" I used her for OT information. Like you know, there's lots of letters when you come into special education, and people just use letters. Like they will talk about CDRP and this and that and id be like …be like a deer in the headlights and the OT would be there with me."	
	"She would bring up children that she felt might benefit or I would brainstorm with her about students. Whenever we had meetings or if I had meetings with parents, she was amazing. And, if they were on Tuesday's, she was there."	
	"She knows her stuff. If we ever had meetings, and we did have a lot of	

		meetings, she went to parent meetings like at parent council meetings to sort of present herself." "So you know, taking them for weeks and working with them in a quiet setting. Just able to do that because she's the expert in that area and not me" "They are trained professionals in this area."		
Impression that job–embedded coaching left P4C educator partners with	She was invaluable.	"If given the option, I was in charge-let's put it that way, I'd have one here everyday." "It's for all the students and she will do what's essential for some." "Wonderful. I wish she was in there more than she can be. She is at our school one day a week. I do take up a good hour of her day when she is there because of the needs in my classroom." "It is a busy classroom but you will see all the needs being met through all the different ideas the OT brought to the classroom." "I can not say it clearly enough, she was the most valuable help to me." "I found that just the mere collaboration was, I can't say enough how invaluable it was." "They (teachers) would search her out. I would have been lost without her. To me, it was invaluable". "Teaching 23 years, 33 years, 5 years…we are always learning it's great to have someone in the classroom helping you out". "...this was invaluable. I mean the students are gonna' take those skills and just grow with them throughout their academic career". "She has been the most amazing resource".	Presence Relationships	Invaluable

"She's definitely more present in the school. So, she's here more often, two or three days a week. She's very visible and the kids know her and the kids trust her. They know she's here to help so she's been able to, like, start a relationship with the kids. Some of the others, you know, they are more of a consultant basis and a just you know, quick in and a quick out. I'd say that's been the nice thing is that she's actually been able to develop relationships with these kids which is I would say, really, really good. Really beneficial".

"It doesn't make any sense that they aren't here all the time."
" It's just so valuable".

"Invaluable not just as a resource to help the kids but as an educational resource".

APPENDIX G

12-31-2015

Moving Toward Inclusion: Inclusion Coaches' Reflections and Discussions in Supporting Educators in Practice

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Abstract

When school systems and administrations provide educators with opportunities to engage in transformative learning through reflective practice and provide opportunities to challenge their beliefs, educator pedagogy for inclusive education can be enhanced (Evans, 1997; Pyhältö et al., 2012; Richardson, 1998). Our research examined the experiences of 11 inclusion coaches while they provided support and built capacity for 38 educators during a change in special education service delivery, seeking insight into the effectiveness of this coaching model. Coaches' experiences were shared during semi-focused group discussions and via an online blog. Qualitative analysis revealed coaches' roles in this context were influenced by their personal expectations, personal growth, support for one another, and support for respective educators. The findings from this research are pivotal for pedagogy and teaching philosophy in inclusion.

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In recent years, ministry and school board policies have stimulated the implementation of inclusive practice in schools across the province of Ontario, Canada. Adding personnel support with expertise in special education is one strategy currently used to facilitate change in traditional educational programs for students with disabilities, i.e., shifting from segregated special education classrooms to fully inclusive schools (where all students are educated in grade-appropriate classrooms in neighbourhood schools). This particular support model is consistent with Transformative Learning Theory (Cranton, 2007), as it enables educators to reflect on previous knowledge and experience through an inquiry-based approach, using collaborative problem solving to implement best inclusive practices. The current paper examines the experiences of Ontario inclusion coaches during their process of school-board-wide change toward inclusion and highlights the variables that supported and challenged their experiences.

Theoretical Underpinnings and Background

The Salamanca Statement (UNESCO, 1994) describes inclusive education as a way of acknowledging the diverse needs of all students and of providing programming that allows full participation in the education system and community. The document indicates that for inclusive education to occur, curriculum, teaching approaches, and strategies need to change. This involves changes in content, approaches, structures, and strategies for all children (UNESCO, 1994). It is on this premise that over the past 20 years many ministries and departments of education around the world have been developing policies to adopt the idea of inclusive education. School boards have since developed inclusive policies and continue to work toward implementing inclusive practices that meet the needs of all learners by ensuring their participation in the classroom and in the school (Giangreco, Cloninger, Dennis, & Edelman, 1994; Reiser & Secretariat, 2012).

Porter (2010) noted that inclusive schools provide support both to students with disabilities and to educators in order to accomplish individual goals that are meaningful. Educators and administrators understand that inclusion is about how environments can be created to ensure the success of all students regardless of their ability (Porter, 2010). Adopting strategies including Differentiated Instruction (developing lessons and activities based on the needs of the students in the class) and Universal Design for Learning (UDL; i.e., strategies that are intended for some, but which benefit all) are increasingly important for classes to be inclusive (Ontario Ministry of Education, 2007; Roush, 2008). Implementing practices that are fully inclusive has a significant impact on the classroom teacher's role in terms of daily workload (e.g., increase in workload) and classroom practice (e.g., adjusting teaching styles) in order to meet the diversity of abilities in the classroom (Forlin, 2001; Reiser & Secretariat, 2012). Research on implementing inclusive practices indicates that in order for educators to be effective and ensure each student is successful, ongoing professional development and support is needed from administration and from experts in the field (Bennett, 2009; Forlin, 2001; Porter, 2010; Vaughn & Schumm, 1995).

Transformative Learning Theory can be used to inform how professional development, knowledge uptake, and capacity building can happen in the context of collaborative peer coaching. Transformative Learning Theory suggests individuals create new meaning for existing schemas through questioning and evaluating personal experiences on an issue, and through confirming one's knowledge through interactions with others (Bass, 2012; Cranton, 2007). Transformation in thinking, beliefs, and practices a process and often requires a reflective component. In Carrington and Selva (2010) reflective practice in conjunction with service-learning pedagogy demonstrated transformative learning in pre-service educators' perceptions of inclusive education, in which educators were able to reflect on and reconsider personal assumptions influencing practice and to change future pedagogy accordingly. Brigham (2011) studied the reflective responses of 24 immigrant educators (from 17 different countries) new to Canada who met in small groups on a

regular basis to reflect and discuss issues surrounding immigration challenges and teaching. Results indicated that the educators identified a collective social transformation because of their involvement in the group. Brigham's study demonstrated that through collegial support, cognitive and affective domains were important for the transformative learning process. Although Transformative Learning Theory may not be explicit in the inclusion literature, the theory emanates through the professional development and support that inclusion coaches offer educators. More than a decade of research on the use of peer coaching or elbow partners in schools has demonstrated that working with colleagues to improve practice has been effective (Buly, Coskie, Robinson, & Egawa 2006; Swafford,1998; Vanderburg & Stephens, 2010). Coaches provide educators with procedural, affective, and reflective support which broadly involves: answering questions, highlighting educators' strengths, suggesting alternative strategies, facilitating problem solving, encouraging risk taking, assisting during implementation challenges, and encouraging reflective practice (Buly et al., 2006; Swafford, 1998; Vanderburg & Stephens, 2010). Furthermore, educators indicated that the support that coaches provided affected the teacher change process and promoted self-reflection (Buly et al., 2006; Swafford, 1998; Vanderburg & Stephens, 2010).

A more recent trend in coaching literature involves the role of experts or other professionals in the school system to support educators working with students who have exceptionalities (Boyle, Topping, Jindal-Snape, & Norwich, 2012; Scheeler, Congdon, & Stansbery 2010; Sharma et al., 2010; Strieker, 2012). Independent of expertise (e.g., school psychologist; itinerant support teacher for the visually impaired [ISTV]; inclusion consultant), having a support person in the classroom for educators who were integrating a student with an exceptionality tends to yield positive outcomes (Boyle et al., 2012; Sharma et al. 2010; Strieker, 2012). Expert support and training plays a crucial role in educators' ability to meet the needs of students, particularly when regular collaboration takes place. Inclusive environments were facilitated when the support person developed an understanding of the educator's training needs and was able to provide support and training in a non-confrontational manner (Boyle et al., 2012; Scheeler et al., 2010). Further, Strieker (2012) found that the support that inclusion consultants provided (e.g., modelling, co-teaching, differentiated instruction, behaviour management, advising administrators about action plans) was important for creating inclusive schools.

Although having an expert support person has desirable outcomes, it is far from flawless. Research has reported that communication, time, and attitudinal barriers may pose challenges for the inclusion support person (Morris & Sharma, 2011). Morris and Sharma reported that school staff (including principals, classroom educators, and teacher assistants) felt restricted by time constraints that limited their ability to collaborate or to schedule programming meetings regarding specific students, and overall did not have a well-developed understanding of the support person's (ISTV's) role. Further, in that study, some educators believed that children with visual impairments would be better served in special schools. These beliefs contributed to non-inclusive pedagogical practices, poor communication, and negative attitude. Since coaching literature in the

context of inclusion support is limited, ongoing research is needed regarding the effectiveness of coaching for informing educators about inclusive practices for students with various exceptionalities.

In order for educators to create inclusive classroom environments, a change process must occur. The research on teacher change has suggested that several key factors are important for sustained change in pedagogy and practice (Carrington, 1999; Gibbs, 2007; Richardson, 1998). Educators must first demonstrate the desire to engage in change. If an educator deems change important and achievable, the likelihood of engaging in and making changes to pedagogy and practice is greater (Pyhältö, Pietarinen, & Soini, 2012; Richardson, 1998). Relevant and timely professional development, such as support from an expert or coach, is one way to promote new learning and risk taking (Strieker, 2012). Research has also suggested that in order to challenge and change attitudes and beliefs about inclusion, educators need the opportunity to actively engage in and experience success using inclusive practices in their classrooms (Evans, 1997). Evans further described that a teacher's readiness for change occurs when s/he can balance autonomy with community. Ideally, this is a community of practice (the school) where educators are encouraged to be inquirers and to engage with each other in critical discussions regarding pedagogy and practice (Berry, 2011; Evans, 1997; Gibbs 2007).

Engaging in a community of practice and collaborating with colleagues fosters the development of strategies and pedagogy for improving outcomes for students with exceptionalities. Personal reflection about expectations and practices, however, is also important for professional growth, effective teaching practices, and student learning (Stover, Kissel, Haag, & Shoniker, 2011). Educators who reflected on and collaborated with colleagues about classroom management, strategies, and routines reported experiencing a more trusting school atmosphere. These educators also advocated for the creation of policies that prescribe and encourage future collaboration (Postholm, 2008).

In the current context, Transformative Learning Theory highlights the meaning that coaches and educators ascribe to an ideal of what inclusive education looks like based on their experiences together in the classroom. A move toward inclusive education is not simply about creating frameworks and developing policies, rather about supporting schools and educators toward creating inclusive schools and classrooms that incorporate existing knowledge and experience through inquiry-based practice. Although coaching models are beneficial for facilitating and supporting educators working to create inclusive environments (e.g., Morris & Sharma, 2012), there is little research on the experiences of coaches as their role unfolds in a school system undergoing transition to inclusion. In the current research, classroom educators were provided with an inclusion coach to support a board-wide transition from a model of self-contained classrooms to a fully inclusive school board. A descriptive phenomenological approach and transformative learning lens has been used to explore this subset of the data, which is from a larger ongoing research project. Our study explored the coaching experiences of elbow partners and sought to identify factors that might contribute to, or pose barriers for, coaches in their role of

supporting educators toward inclusive classroom practice.

Purpose

The purpose of this research was to examine the perceptions and experiences of 13 inclusion coaches as they worked through successes and challenges of supporting schools and teachers through a board-wide transition. The school board, experiencing a change in service delivery, had implemented the role of inclusion coaches to support educators in facilitating inclusive classrooms. Although limited, previous research indicated that the role of an itinerant or coach is unique in that the specialized support they can provide is extremely valuable, yet their ability to connect with classroom educators in an authentic way can pose great challenges (Morris & Sharma, 2011; Sharma et al., 2010). By examining the experiences of inclusion coaches during challenging and successful moments at the onset of their role, this research provides a glimpse into the process of breaking down barriers, changing teacher perceptions, and facilitating genuine inclusive classrooms through partnerships and capacity building.

Methods

Research Design

The study used a subset of qualitative data derived from a larger research study (Bennett et al., 2014) that examined the overall experiences and change process of teachers and coaches with regard to their perceptions, attitudes, and pedagogy. Qualitative research was conducted through online reflective responses (in which participants were asked to reflect on a series of questions and provide their perceptions based on experience over a period of time) and through focus group interviews with the inclusion coach participants. Because focus groups are useful for conducting initial research into an area of interest (Gerber & Smith, 2006), this method was combined with the online reflective response technique to capture a more complete representation of the inclusion coaches' perceptions and experiences. This article reports on the challenges and barriers experienced by the 13 inclusion coaches during the initial 8 weeks of their partnerships with educators who were novices to inclusion.

Online reflective responses and focus groups provided participants with a safe and non-threatening platform to express experiences in a detailed, open-ended fashion. Online reflective responses were completed anonymously and allowed the opportunity for coaches to share as much or as little as they were comfortable with. Further, three researchers joined the coaches for two focus groups at their school board, at a time when coaches were already gathered to debrief and share their experiences with one another. Through these online reflective responses and focus groups, participants were able to share ideas from their experiences in the role and to explore and discuss common successes and challenges (as also evidenced in Breen, 2006; Powell & Single, 1996). The coding of these qualitative data provided researchers with insights into the feelings, beliefs, reactions, and experiences, results that are not typically available using other

research methods (Morgan, 1997). Data gathered from journal entries, reflective responses, and focus groups can help identify issues important to participants and can offer ideas for further inquiry (Powell & Single, 1996). The use of focus groups provided the opportunity to understand perspectives of a certain group of individuals with a common experience (Gerber & Smith, 2006; Morgan, 1997) and also allowed the researchers to gather large amounts of qualitative data in a short period of time about personal experiences when facilitating inclusion.

Participants

At the onset of the study, there were 11 inclusion coaches involved. Four months into the school year, 2 additional inclusion coaches were added to the team, thus increasing the participants in this study from 11 to 13. The role of the inclusion coaches
involved individually supporting schools approximately 4 days per week and meeting as a group on the fifth day for debriefing, knowledge sharing, and professional development. Each coach was responsible for supporting 3 to 4 schools where they worked 1 to 2 days per week with several teachers (partners), each of whom had a child with an exceptionality in class. The 13 female coaches were all employed by the school board. Coaches were carefully selected by the school board in response to a job posting regarding an inclusive practice initiative. All coaches were certified educators with the Ontario College of Teachers and had special education training and an average of 12 years of experience in various capacities including contained classes, special education resource educators, inclusive classroom educators, and board special education support personnel. Coaches had been involved in ongoing professional development and training in inclusive education.

The coaches developed partnerships with 26 educators in all, from both the elementary and secondary panel. The educators who partnered with the coaches included elementary (n = 14), secondary (n = 7), special education (n = 2), and not specified (n = 3) with an average of 15.14 years of teaching experience (range = 4 to 28 years; median = 13 years). Two of the 26 educators had special education qualifications.

Procedure

In September 2013, the inclusion coaches were invited to participate in semi-structured reflective responses and focus group discussions through a letter of invitation (via email) that outlined the purpose of the research. Coaches were randomly assigned email addresses in order to identify their reflective responses for future data collection purposes and as a confidential means to correspond with the researchers and reply to the reflective response prompts. Initial prompts were emailed to the coaches who then participated in online journaling by answering thought-provoking questions regarding their experiences over an 8-week period from the beginning of the school year. Consenting coaches replied via email.

The reflective response questions listed below were developed by the research team in

order to encourage the coaches to reflect on their practice in an authentic and personal way and engage in transformative learning. Since salient experiences are important for the development of inclusive pedagogy and transformative learning, both job-related and student-focused questions were emailed to the participants, who responded to the initial email within two weeks.

1. Reflecting on your initial weeks of the job, was it what you were prepared for/what you were expecting? How has your outlook changed/stayed the same? Elaborate on your reflection.

2. Describe a salient experience that you had with a student with an exceptionality.

3. Thinking back, cite an example or situation that you had with a student with an exceptionality that was challenging.

4. What do you anticipate will be your challenges in the upcoming six-week period? (e.g., practical, attitudinal, personal). Please elaborate on the perceived nature of these challenges.

Responses were extracted from the emails and compiled into one file according to question in order to compare responses and identify themes to be used in the development of the focus group questions. All participants individually submitted electronic reflective response data, and these were alphanumerically coded for anonymity and analyzed for trends.

The initial focus group took place four months into the school year, and inclusion coaches were separated into two groups (secondary or elementary) based on the panel for which they provided support. It was decided to create these groups in order to have smaller numbers and to allow for more similarity of experiences in the discussion. The questions for the focus groups were developed by the researchers based on salient themes that emerged from the reflective responses. In reviewing the transcripts from the reflective responses, the following reoccurring key words and indigenous categories emerged: process of changing perceptions, resistance/challenges, capacity building, and students. These themes inspired the development of the focus group prompts in order to elicit further responses pertinent to the research questions:

1. Have your views of inclusion changed (social, etc.)? How?

2. What are some ways or strategies you used to teach teachers to practice more inclusively?

3. What are some issues and strategies to overcome these issues concerning balancing the development of a belonging classroom culture with meeting the educational needs of the students?

4. How do you best empower the teacher you support so that capacity is built and skills/knowledge are translated next and subsequent years?

5. What universal/UDL strategies are you implementing and how are they received and/or working? Describe the context.

During the focus groups, the questions were asked one at a time in order to allow each inclusion coach the opportunity to respond. Participants were encouraged to freely comment on each other's points in order to evoke a naturally flowing conversation. The focus groups lasted approximately 70 minutes and were audio recorded. Resulting audio data were stored electronically and then transcribed by the researchers. The participants were alphanumerically coded to maintain anonymity.

Data Analysis

Transcriptions of the audio recordings were verified by a second researcher for accuracy. Member checks by participants were not completed in order to preserve authenticity of responses. As the focus groups were designed to capture the experiences of the coaches at a specific time, member checks might have caused participants to alter responses based on new experiences or personal growth. Upon completion of the first reflective response and the focus group, the data were screened to identify emerging themes that address the research questions (Miles & Huberman, 1984). Due to the narrative nature of the data, the constant comparison method (Corbin & Strauss, 2008) was used to code the data from the reflective response document and the focus group transcription into categories and themes relevant to the research questions (Lichtman, 2006; Miles & Huberman, 1984; Patton, 2002). Using this method, two researchers assigned codes to relevant ideas to reduce the data, facilitate reliability, and aid comparison. Data were then coded and grouped manually by looking at each participant's responses and assigning them to the corresponding theme.

Findings

The results from qualitative analyses unveiled several themes that highlighted the barriers posed to the role of the inclusion coaches to support educators in inclusive classroom practice. For the purposes of this paper, the following four themes will be discussed: systemic barriers, personal growth, support for educators, and coaches supporting coaches.

Systemic Barriers

Among the majority of secondary coaches and approximately a third of primary coaches, systemic barriers that influenced personal job expectations was an emergent theme of the focus group questions and showcased some of the unanticipated challenges encountered.

More specifically, coaches conveyed feeling optimistic and energetic about the initiative; however, their initial idea of collaborating to create a sense of community and belonging was unexpectedly met with barriers at the system and educator level. Although some administrators and teachers were eager to embrace inclusive practice, not all were open and welcome to the change. One coach indicated that "many teachers did not even know why we were there [in the classroom]; they saw me as someone from the board coming in to make sure they were doing their job." In addition, coaches were surprised to discover that educators in the regular class were selected by administrators to be involved in the project as opposed to educators requesting available support as a means to improve their practice. Overall, coaches enthusiastically started the school year expecting that they would be a welcomed support for schools, and in fact, this was not the case in all instances.

Coaches noted a lack of understanding about their role by school principals, which resulted in principals redefining their roles and setting parameters as opposed to fully utilizing the coach to maximize collaboration and to improve student outcomes. For example, one coach described being provided a workspace in the school and being told that educators and faculty would approach the coach there if s/he required assistance, "People don't want you in their classroom, and people didn't choose to work with me, they were told to be with me." Not surprisingly, educators also misunderstood the coach's role, and this was reflected in their negative attitudes toward the coaches and inclusion. Several coaches described being expected to work in the context of an educational assistant and support the student in the classroom rather than in the capacity of a coach to collaborate and problem solve with the classroom teachers. "She [the teacher] told me that she was just happy to have an extra set of hands in the classroom to work with the student [with special needs]." Coaches expressed that they were not prepared for this reaction, nor able to resolve educator's negative attitudes through individual conversation, since the negativity was inherent in the atmosphere in which the educators worked.

Discordant beliefs about the benefits of inclusion also presented a problem when communicating with school personnel (e.g., principal, classroom teacher, resource teacher, educational assistant, parents, and student). One coach recounted being "accidentally" introduced to a teacher as "the exclusion coach" by the principal, who afterward corrected him/herself, saying "Oops, I mean inclusion coach." Although the principal clarified this "Freudian slip," the coach expressed feeling awkward and unwelcomed in the school and experienced further tension when interacting with the teachers. This illustrates that some administrators' and educators' perceptions of the project were not aligned with the perceptions of the coaches and school board members.

Coaches reported a range of opinions with respect to the effectiveness of inclusion toward meeting the needs of students in their schools. Although coaches held strong positive beliefs about the inclusive model, they found that staff varied in their degree of willingness to move forward with the inclusive model. Six weeks into the term many coaches were discouraged to discover they had not made the progress with the educators

that they initially envisioned. “We thought we would have all this practice laid out, a beautiful inquiry cycle going … you thought you were going to be ‘here,’ but in reality it didn’t come together like that.” Coaches described experiences that depicted the negative attitudes and uncertainty educators had about inclusive learning. In sum, coaches did not anticipate discordant beliefs to exist about the overall vision that administrators, educators, and families had for fostering successful students and about the inclusive initiative as a means of achieving that goal. Although coaches expressed the view that their role did not unfold as expected, they were not discouraged and continued to plan ways to initiate changes in the upcoming term.

Personal Growth

As a result of the challenges experienced by the coaches, all secondary coaches and the majority of elementary coaches were able to recognize and discuss their personal level of growth. Expectations initially held by the coaches shifted to adapt to the notion that implementing a change in practice was a slower-than-expected process. The change involved several localized variables that needed to work together in order for global change to occur. In turn, the coaches adjusted their expectations with respect to how they personally perceived their success.

> It’s a bit of a roller coaster. We over-complicate things and I think we have a mindset that we think of all the ways it [inclusion] can’t be successful. We are the road block and we over-complicate things … let’s just try … maybe it will work out, maybe it won’t, but we will learn something from it.

Coaches’ perceptions of success changed from one characterized by a holistic vision of community and capacity building to improve student outcomes to one in which they identified successes as they occurred on a variety of levels. They described celebrating the “baby steps” that demonstrated their effectiveness in implementing the model in the schools: “Maybe it’s not that big jump but the movement.” Some examples included observing an educator implementing a strategy suggested earlier, or watching the novel learning experience of a student shape the educator’s perspective on inclusive teaching practice. Finally, coaches’ expectations about what educators gain from their partnership have evolved from understanding why the program was implemented to also appreciating how the program is beneficial for all the students in the classroom. One secondary coach eloquently described the impact of this evolution on the school community:

> It’s impacting educators in the building because they know that inclusion is happening in our board, and they’re seeing the kids [with special needs] out more, and they’re seeing that it is possible, that you can make a community in the whole school and not just in one classroom or in one situation. They see students are talking to each other in the hallways more, they are being included in the hallways and having conversations because they’re actually out of the room [self-contained classroom]. We’ve had parents come realizing that the opportunities are out there for them [their children with special needs] to make connections and have relationships that go beyond the little hallway.

In terms of personal growth, all coaches acknowledged that questioning their practice and

approach, as well as engaging in personal reflection regarding moving forward, allowed their own perceptions of inclusion to change. As the partnerships developed with educators, coaches began to encourage partners to have conversations and to question their practice. The coaches also described their own level of learning and perceptions as having changed and evolved through reflection on experiences. For example, one coach described her inclusive experiences as having left a marked impression: "Once you see it [inclusion], you can't un-see it, and it's hard to not go into the classroom with that sort of lens." Another coach explained the impact that observation had on the shift in her change process:

> I am finding out that more and more it isn't about inclusion, it's about good teaching practices … there's nothing else you need much beyond that: In terms of coaching and building capacity, it's questioning and observation that have been hugely powerful.

Experiential learning and reflection enabled coaches to fully experience and understand the impact of the shift. Coaches involved in this project already had beliefs deeply rooted in inclusion, yet they noted that the impact of inclusion did not become vivid until witnessed by both the coach and the educator firsthand. For example, one coach described an experience she had with a student who was labelled as globally delayed. This student was described as not able to identify the letters or letter sounds of language. One day while included in the regular classroom, this student was observed to correctly recognize the names of peers on an interactive white board and to initiate pulling the names into a virtual box to take attendance. The impact of this experience was two-fold: It revealed the extent of the student's capacity, that is, this student was able to recognize words as a whole; and the coach realized that capacity could not be built until educators witnessed, and were personally impacted by, the benefits of inclusion firsthand. Because of this, this coach realized that it was her job to facilitate the environment so that these experiences could happen.

In another example of a salient experience, a music teacher who thought s/he was demonstrating inclusion by having a student from a previously self-contained classroom in the music class was astonished to discover the difference between charity-based and authentic inclusion. In this situation the student dazzled peers and teacher with his/her ability to keep a rhythm in turn creating a baseline of his/her knowledge of the subject matter. In turn, these experiences had positive implications for the future social (e.g., peer relationships) and academic (changes in individual education plans) opportunities for this student with exceptionalities.

The coaches in these examples recognized that in order for effective partnerships to occur, educators needed to witness inclusion prior to accepting and seeking collaboration from the coaches. This realization prompted coaches to reconsider and restructure their approaches in the classroom and the school.

Coaches unanimously agreed that it was through their partnerships that they learned more

about themselves, educators, and especially the students they were serving. These insights exemplify the knowledge gained about student learning style, capacity, and ability to relate to his or her peers, which may not have otherwise been detected without the opportunities within an inclusive classroom. Coaches further reported that these lived experiences which had a salient impact are what makes them better educators and ultimately influences their perception of change.

Support for Educators

All of the inclusion coaches identified their belief that in some capacity their support contributed to facilitating change in teachers' practices and attitudes. One coach mentioned "trying to highlight the things they're doing already—labelling the learning or teaching strategy for them that would be in the classroom—so that they'll recognize it." Coaches measured the success of their support by the changes they witnessed in the classrooms and in the educators with whom they worked. In one particular school in which a self-contained special education class recently closed, the coach shared that, of the teachers there,

> I've had three of them come and speak to me direct about that they didn't believe this [inclusion] would work and they changed their minds, and they're not even the ones… having those kids in the classroom, they're on the periphery of that. We've got to get a bigger bandwagon.

Coaches have all recognized that the most important factor in building capacity and change is to first develop a solid trusting relationship. Regarding building relationships,

> we are feeling comfortable asking them [partners] how to have some of these conversations [about changing practice]… It's in those moment conversations when you can say "What about this?" … and not feel like you're passing judgment. It's like two working together for the benefit of the kids.

As coaches they were striving to develop a trusting rapport with their teacher partners, they were constructively questioning the educators and encouraging their reflection, which they identified as effective techniques for their own personal improvement of practice.

Half of the coaches specifically discussed scaffolding inclusion with their partners and attempted to "meet teachers where they are at" to help them grow and encourage risk taking. "It's about empowering teachers to support capacities; it's that kind of gradual release model." Coaches believed that it was important to provide positive feedback to educators, which included pointing out what educators are currently doing well and/or highlighting a time when they executed a lesson or addressed a situation effectively. This technique positively reaffirmed that what educators were already doing was good, and it encouraged them to take more risks, ultimately building capacity to change practice. One coach shared an example of what this risk taking looked like. In her example she indicated that her partner told her, "I set myself up to fail every time you come in." Delighted by her comment, the coach told the research team, "What she is really saying is

that she is trying something new." These moments mark important milestones for inclusion and are regarded as an exciting step for the coaches. Coaches noted they enjoyed watching their partners go through the same change process that they are concomitantly experiencing, and are pleased to have the ability to support and encourage this collaborative learning process.

Another key strategy identified for supporting educators included modelling and guiding the use of Universal Design for Learning (UDL) as a timely and natural extension to what is already happening in the classroom. Many examples were shared relating the coaches' suggestions for using UDL strategies that would specifically address the needs of the students with exceptionalities, and benefit the learning outcomes of all the students in the classroom. One coach shared a story about a partner who was very reluctant to change her seating plan to promote the social development of one student: "She was not ready, and one day I went in and they [the students' desks] were in groups and she said she should have done it months ago." The coaches also identified several other strategies they used to support the educators, build relationships, and encourage change. Coaches served as a listening ear for their partners when working out challenges, offering resources and professional development sessions, and planning and co-teaching lessons around building community in the classroom. The coaches worked to raise awareness in the entire school and community and to support three of the schools who participated in a disabilities awareness day, which was covered by the local media.

Coaches Supporting Coaches

Considering the coaches' job expectations as well as the challenges they discussed, it is not surprising that the final theme delves into the unique relationship shared among the coaches. The value of support for each other was acknowledged during the focus group discussion by nearly all secondary-school coaches and approximately half of primary school coaches. Weekly meetings provided the platform for coaches to decompress, share accomplishments, problem solve, and encourage one another as they translated their knowledge and beliefs about inclusion into practice. During the focus group, coaches verbally and non-verbally (e.g., with smiles, head nods) acknowledged the importance of weekly meetings together. Coaches commented that without the weekly opportunities to debrief, share experiences, and provide support, they might not have made it through the workweek effectively. Meeting with one another on a regular basis provided coaches with a sense of safety and support when sharing the accomplishments and struggles faced during the week.

Coaches discussed the unanticipated barriers that filtered from the board level into the classroom level, which ultimately affected their role in the classroom. At the secondary school level, all coaches disclosed that administrative barriers such as a lack of communication between the school board and participating schools resulted in a misunderstanding of the coach's role in the classroom. Although coaches were empowered to support educators by providing them with strategies and to build capacity

for teaching inclusive classrooms, educators' reluctance to collaborate made the coaches feel that their role was more akin to that of an itinerant or an educational assistant. Such attitudes stem from the lack of knowledge and understanding about the program at the school level.

Despite some of the difficulties that can prevent a smooth implementation of the initiative, weekly meetings provided coaches with the opportunities to share successes and challenges and to collaborate on effective techniques for approaching issues faced during the week. Coaches reported feeling reassured that although they came from different places, sharing their experiences with each other empowered them to continue to make a difference in the lives of educators and of their students with learning needs.

Discussion

To examine a coaching model of professional development, the current study analyzed the experiences of inclusion coaches to better understand the variables that contributed, or posed a barrier, to the process of change as a function of a school board transition in service delivery toward inclusive practice. This research captured the qualitative experiences of 13 coaches in their roles supporting educators during a system wide change of service delivery to an inclusive model of education. Findings revealed systemic variables, personal growth, support for one another, and support for respective educators were important for implementing change and practicing inclusive education. Critical evaluation of these four themes indicated that reflection about teaching practice throughout the change process was a critical component in defining the coaching role. Consistent with Transformative Learning Theory (Cranton, 2007), coaches recognized that engaging in reflective practice was also essential for educators. In order to embody the breadth of inclusive practice, educators and coaches alike required the lived experience to understand what inclusion meant and looked like. Here we focus on the themes that emerged from the data as they relate to the role of the inclusion coaches and their support of the change process, as well as on the variables that require further examination. We conclude by discussing implications of this research for educational practice.

Although coaches had a passion for inclusion and supported the board's inclusive initiative, their job expectations did not unfold as anticipated. Through their partnership experiences, coaches discovered that there was a lack of knowledge about their perceived role in the schools. In turn, coaches' expectations for this new service delivery initiative were changed. Coaches initially anticipated quick and favourable outcomes for both educators and students. Similar to previous research (Morris & Sharma, 2011), elbow partner coaches in this research found that a change process in this capacity takes time and is influenced by the support of administrators, school culture, teachers' attitudes, and teachers' perceptions of the coaches' role in the classroom.

School culture is developed through leadership in the school, and this responsibility is

chiefly the role of the school administrator. The way in which a principal leads school staff has great influence on the ability of educators to engage in a process of change in attitude and pedagogy in relation to inclusive practice. Ineffective communication about change between the principal and staff, paired with insufficient time developing mentorship roles in the school, may result in teachers who are not willing to collaborate, and in turn, may create an environment in which it is difficult for change and coaching to occur (Gross, 2012). A positive school culture nurtures and supports the learning needs of students at the administrative level. Educational leaders who supported and encouraged educators toward positive change developed relationships with their staff, provided opportunities for professional development and personal growth, and understood how policies facilitated in a supportive learning environment (Furney, Aiken, Hasazi, & Clark/Keefe, 2005; Hoppey & McLeskey, 2013). School-based leaders must also have supportive and positive partnerships with their administrators at the board level to ensure that there is a shared understanding of new policies and practices that will involve the schools. Knowledge about the current project's impact for students with exceptionalities may not have been translated well in the schools and may have subsequently affected the educators' attitudes toward inclusion and the coaching initiative. It is important to note that research has reported varying attitudes and opinions about fully inclusive education, so this may not have been a function of administrative misunderstanding (e.g., Berry, 2011; Boer, Pijl, & Minnaert, 2011; Gibbs, 2007). It is uncertain the extent to which educator beliefs and previous experience about inclusion played a role in their collaborations with the coaches.

Through their observations, reflections, and experiences, coaches developed a greater understanding of the challenges facing the implementation of inclusive practices and, in turn, have become more confident when challenging, supporting, and encouraging educators through this system-wide change. Although the coaches faced, and continue to face, challenging barriers beyond their control (e.g., resistance from administration and staff), they developed connections and partnerships with educators and have identified that changes are taking place. Consistent with the literature (Morris & Sharma, 2011), coaches continue to employ frequent communication and good working relationships with staff to minimize or negate any potential barriers that could pose challenges for working in a partnership such as this.

The hurdles and barriers reported in this research came with a silver lining. Coaches reported that the unexpected challenges were the precipice of personal growth and the beginning of a move forward in the direction of inclusive ideology. Other variables that contributed to the coaches' ability to grow and transform in their own learning included engaging in professional development and personal reflection, celebrating successes, observing practice, and collaborating with fellow coaches and educators. Research on the effectiveness of literacy coaching demonstrated that coaching involves discussing mutual goals that educators and coaches have, followed by reflecting on how to optimally achieve those goals using objectives, assessments, and learning outcomes (Buly, Coskie, Robinson, & Egawa, 2006). Coach roles, administrative support, and educators'

resistance are barriers common in the related coaching literature (e.g., Gross, 2012; Morris & Sharma, 2011); however, it is also evident that successful coaching is an evolving process, which requires reflection on experience and administrative support (Lynch & Ferguson, 2010). In recent coaching literature (Feighan & Heeren, 2009), educators reported that that greater student engagement also resulted from the support educators received from the coaches, along with an increased confidence in their own teaching practice.

Through the aforementioned experiences, the perception of the change process has also evolved for coaches. Coaches reported re-evaluating an earlier perception of success to include recognizing that success as a whole (or the "big picture") was influenced at many levels and by many variables. The coaches acknowledged that inclusion wasn't about all the strategies and changes, but rather "about good teaching practice." As a result of this growth, coaches acknowledged that moving forward they will approach their role differently to be more effective educators and mentors. By reflecting and experimenting on their practice, coaches and educators alike may have felt empowered, confident, and autonomous to make purposeful pedagogical changes (Pyhältö, et al., 2012; Richardson, 1998).

Coaches recognized that strong partnerships needed to be established in order for any change process to occur. Developing trust and relationships is important in coaching, as it provides an opportunity to have constructive conversations about mutual goals that will benefit the students. When these conversations occur between partners who have a good rapport, collaborative and non-judgmental discussions take place, and educators are more agreeable to incorporating change into their practice (Buly, et al., 2006; Swafford, 1998). Consistent with the literature, the coach's role in this study was to provide educators with multiple levels of professional and personal support during the transition and change processes (Boyle el al., 2012; Morris & Sharma, 2011; Strieker, 2012; Swafford, 1998). It was evident based on the coaches' experiences that some teachers had a negative perception of the coaches' role as being evaluative. Ensuring educators have an understanding about the supportive and collaborative role coaches serve in the classroom is an integral component of partnership. Scaffolding and modeling were
essential strategies that supported educators' knowledge development regarding inclusion and its application in the UDL classroom. Although the coaches developed schemas about what good practices for working with educators look like, it was premature in this phase of the study to identify specific strategies that were effective for all educators. Coaches recommended individually assessing the needs of each educator in order to establish what types of strategies and support would best complement each partnership and classroom.

Finally, a theme that resonated among all coaches was how invaluable it had been to provide support for one another was. As part of the school board inclusion initiative, mandatory weekly meetings embedded in the coaches' responsibilities provided the opportunity to discuss the challenges and successes and to work collaboratively to move forward with their colleagues. Previous coaching research (Boyle el al., 2012; Morris &

Sharma, 2011; Strieker, 2012; Swafford, 1998) identified similar issues and challenges as those experienced by the coaches in this research; these impacted the coaches' ability to fulfill their role effectively. These challenges might have been avoided if coaches had had the opportunity to debrief with one another. In the current project, coaches met weekly and supported one another by sharing practices that both complemented and hampered the evolvement of their own practice and role. Consistent with Brigham's (2011) findings surrounding the transformative learning that occurred through the support that immigrant teachers provided one another, coaches in this study also grew in their thinking and emotional appreciation for one another. Although the coaches were in different places with respect to their growth and involvement in the classroom, they valued coming together and supporting each other in moving forward. Previous research found that seeking and providing advice improved both parties' self-efficacy, capacity to solve problems through collaboration, and ability to improve student achievement (Moolenaar, Sleegers, & Daly, 2012). This study has revealed that implementing change of this caliber may not be synergistic, and its success involves clear communication among stakeholders, policy makers, and educators. The uptake of knowledge about board- and school-wide initiatives is influenced by the support of administrators, and their support is also integral in building an inclusive school culture involving all staff and students. Recognizing that system change of this nature takes time (5–7 years; Goldenberg, 2004), it is important that all parties at each level are collaboratively involved in the process (Dworski-Riggs & Langhout, 2010). When all parties are informed and accountable, effective collaboration can take place.

Implications for Future Research and Practice

Although four themes were revealed through coaches' personal experiences and reflections, several other themes involving external factors must be considered. The findings of the current study illustrate that a disconnect may exist between the staff members' and school board's visions about the inclusive policy and its implementation. Further research must address the role that policy-makers have in conveying knowledge to administration. In addition, the role of administration in creating inclusive school culture should be considered. Finally, teacher perceptions and attitudes toward exceptionalities should be examined as a possible factor in coaches' ability to support inclusion. Although comments were made regarding issues with implementation of the coaching model, which may have had an impact on the coaches' experiences, this topic is outside the scope of this paper and should be considered for future analyses. This research has provided insight into the strategies coaches have identified as effective in supporting educators during transition and providing information about classroom requirements (e.g., supports, resources, services). First and foremost, coaches recommended prioritizing and initiating rapport and trust building at the beginning of the term. In addition to supportive partnerships, coaches benefit from having the support of their colleagues in order to be more effective in their coaching roles. Administrative and attitudinal barriers such as teacher perception of disability require intervention in order for coaches to successfully influence change. Educators new to inclusive practice have gained insight into how to

create inclusive teaching styles, cultivate a supportive classroom culture, and gain an appreciation for challenges experienced by students with exceptionalities. In turn, educators and coaches have provided optimal academic and social outcomes for students with disabilities. This research also provides insight into what practices (e.g., inclusive classroom practices, the coaching model, UDL, etc.) are currently working and should be continued as well as into the benefits of engaging in reflective practice as a means of personal growth.

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