Developing an Intersectoral Competency Framework for Collaboration Between OTs and Teachers

By

Jimmy Wintle

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Abstract

Current inclusive approaches to education create challenges for teachers, who must meet the educational needs of diverse students. Occupational therapists (OTs) assist some of these students through the provision of school-based occupational therapy (SBOT). Although competency frameworks exist for interprofessional collaboration (e.g., the National Interprofessional Competency Framework [Canadian Interprofessional Health Collaborative, 2010]), these frameworks conceptualize collaboration as existing across professions within the health care sector. Despite the need for OTs and teachers to work together, there is no competency framework in the collaboration literature to guide the intersectoral collaboration that occurs between these two professions.

The objective of this study was to develop a competency framework for collaboration between OTs and teachers. A scoping review (Arksey & O'Malley, 2005) of the literature on tensions in collaboration between OTs and teachers was conducted. A total of 46 unique tensions were charted across 30 articles. This was followed by interviews of OTs (n=5), teachers (n=5), and parents (n=3) with SBOT experience. An inductive analysis of the data was performed to yield 68 themes across 15 superthemes. Methodological triangulation of the data was preformed to create a conceptual framework of collaboration between these two professions. Lastly, based on data from the scoping review and interviews, competency modelling techniques (Marrelli, Tondora, & Hoge, 2005) were used to create a competency framework. A total of 28 competencies were developed across the attitudes, skills, knowledge, behaviours, and beliefs required for collaboration.

The competency framework developed in this study rectifies a shortcoming in the literature on collaboration. This competency framework can inform learning opportunities for OTs and teachers and potentially improve collaboration between these two professions.

Co-Authorship

A manuscript adapted from Chapter 2 has been accepted for publication in the *Journal of Occupational Therapy, Schools, & Early Intervention* and can be cited as:

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Chapter 1

General Introduction

This dissertation explores the tensions and facilitating factors in collaborations between occupational therapists (OTs) and teachers through an empirical study and review of extant literature. This research is then used to produce a conceptual framework leading towards competencies for effective collaboration between these two professions. The current chapter begins by situating the researcher, followed by describing the problem, situating the research, and stating the purpose and objectives. An overview of the remaining chapters within this thesis concludes this chapter.

Situating the Researcher

My post-secondary studies began in 2003 in concurrent education, a professional program that leads to teaching qualifications. Growing up as a student with a learning disability, and subsequently working with children with various special needs, I was drawn to special education, and made this a focus of my studies throughout my bachelor of education degree. I followed my bachelor of education with a master of education that explored inclusive post-secondary education for students with intellectual disabilities.

My cumulative experiences instilled an appreciation for one-on-one work with individuals with special needs and so I pursued studies in occupational therapy. What struck me during my studies in occupational therapy was that, despite the large practice area of school-based occupational therapy wherein OTs and teachers collaborate, OT students learned little about teachers, schools, or school curricula. Looking back, I similarly realized that, as a teacher candidate with a focus on teaching students with special needs, I had learned little about occupational therapy. This realization inspired me to pursue doctoral studies with the objective

of improving the professional development of OTs and teachers so that they can better collaborate with each other.

Having an academic background in both teaching and occupational therapy has provided me with valuable insight that has served me well throughout my PhD studies. My background has lent credibility when applying for funding, ethics approval, and when approaching potential participants. However, my background has also imparted degrees of professional socialization within the fields of teaching and occupational therapy that have engendered assumptions and ways of thinking that have had the potential to influence my expectations and interpretations of the data.

To maintain an awareness of this influence in my research I engaged in reflexivity. The intention of a reflexive stance is to enlighten the researcher's audience as to the researcher's own perspectives as well as to remind the researcher to be attentive to and conscious of the origins of one's own perspective and voice (Patton, 2002). Patton (2002) identifies a number of questions that an inquirer will find useful when practicing reflexivity. Among those questions are: How do I perceive those being inquired about? What shapes and has shaped my perspectives?

From my own experiences, I viewed teachers as generally overworked with little time for visitors to the classroom. My perception of OTs, again based on experience working with seasoned professionals, was that they were something akin to magicians—always prepared with a trick up their sleeve for whatever the situation required. Before, during, and after engaging with the data, it was important that I reflect on my views and their origins as a means of acknowledging my personal biases in an effort to be aware of their presence and influence. For example, by acknowledging my personal views of OTs, I realized I expected to hear teachers give high praise to them and the recommendations they provided. By confronting this

assumption, I was able to separate it from my data; thus, I was more receptive to the voices that were critical of OTs' making recommendations that are not academically or practically appropriate. By adopting a reflexive stance, I believe I was better positioned to immerse myself in the perspectives of my participants such that this thesis is a reflection of their opinions, experiences, and desires for their professions.

Statement of the Problem

Currently there are more than 700 000 students with special needs in Canadian schools (Hutchinson, 2014). Often, the needs of these students are so complex that OTs and teachers collaborate with each other to develop unique solutions that support students to achieve meaningful learning outcomes (Villeneuve & Hutchinson, 2012). There are multiple benefits to collaboration between OTs and teachers, including increased opportunities to develop new teaching skills, share ideas and strategies, and improve cohesiveness in services for students with special needs (Coben, Thomas, Sattler, & Morsink, 1997). However, there are also several obstacles to effective collaboration between OTs and teachers (Kennedy & Stewart, 2012). For example, previous literature has identified the different cultural and professional systems of therapists and educators as contributing to conflicting perspectives and philosophies (Bose & Hinojosa, 2008; Nochajski, 2001; Paul & Peterson, 2001).

Similar issues have been found in collaboration between different health care professions, and have been directly addressed through the development of interprofessional competencies for health care (Canadian Interprofessional Health Collaborative [CIHC], 2010). However, there is a lack of literature addressing the needs of OTs and teachers when collaborating. Specifically, there is no literature offering a competency-based framework for interprofessional collaboration

between these two professions. To address this, the current study was undertaken to develop a set of competencies for interprofessional collaboration between OTs and teachers.

Situating the Research

OTs help enable engagement in everyday living through occupation (Canadian Association of Occupational Therapists, 2012a). OTs help students with special needs to access, progress, and participate within the school system (Spencer, Turkett, Vaughan, & Koenig, 2006). Special needs may include problems with handwriting, organization, socialization, fine and gross motor skills, visual motor and perceptual skills, and sensory processing, among others (Ontario Society of Occupational Therapists, 2014). OTs serve students with special needs by using remedial strategies that establish or restore the student's impaired abilities and compensatory strategies that teach the student new skills or adapt the environment or activity to better fit the student's abilities (Radomski & Latham, 2008; Villeneuve & Hutchinson, 2012). Such strategies may include improving students' skills to better meet expectations, removing physical and attitudinal barriers, recommending adaptations to activities or the use of assistive technologies, and building the capacity of other members of the educational team to work with students with special needs (Villeneuve & Hutchinson, 2012).

In Ontario, OT services have been provided as part of the School Health Support Services program since 1984. The intent of the School Health Support Services program is to ensure that no school-aged child is denied access to education because of special health support needs during school hours (Ontario Ministry of Education, 2012). Under this program, students were typically removed from class for direct therapeutic interventions. In the 1990s, however, there was a shift in service models away from direct intervention toward consultation services that focused on the educational relevance of the service and support of teachers in their work with students

(Villeneuve, 2009; Wehrmann, Chiu, Reid, & Sinclair, 2006). Currently in Ontario, OTs typically visit a student up to six times during a school year (Deloitte & Touche, 2010). In the 2008-2009 academic year OT services represented 19.7% of school health support services by volume, while OTs served 49.7% of the individuals seen by school health support services (Deloitte & Touche, 2010). From 2007-2008 to 2009-2010, there was a 12% increase in the number of students receiving school-based OT services in Ontario (Deloitte & Touche, 2010).

The shift from a direct intervention model of service delivery to a collaborative consultation model has required OTs to become knowledgeable about the routines, environment, and curriculum of the student's classroom so they can better specify how the student's special needs affect functioning within the school environment (Bazyk & Case-Smith, 2010). This information is best gleaned from the student's teacher. Through collaboration between teachers and OTs, individualized goals are established to reach outcomes related to classroom skills, self-help skills, mobility, assistive technology use, sensory regulation, and prevocational and transition needs, among others (American Occupational Therapy Association, 2010). Thus, collaboration between OTs and teachers is crucial to support engagement in learning, play, and social experiences that occur within the natural contexts of school (Rodger & Ziviani, 2006).

The notion of collaboration is supported both at the practice level and at the regulatory level as a competency required in both the occupational therapy and teaching professions. At the practice level, literature from both the health field, which includes occupational therapy, and the education field espouses the need for collaboration. In the health field, for example, D'Amour, Ferrada-Videla, Martin-Rodriguez, and Beaulieu (2005) state that the term collaboration conveys "the idea of sharing and implies collective action oriented toward a common goal, in a spirit of harmony and trust, particularly in the context of health professionals" (p. 116). This is echoed

by the CIHC, a consortium comprising health organizations, health educators, researchers, health professionals, and students from across Canada. The CIHC supports interprofessional education and collaborative patient-centred practice as paramount to building effective health care teams and improving the experience and outcomes of patients. In 2010, the CIHC produced the *National Interprofessional Competency Framework*. This framework is a practice-focused guide that articulates a set of competencies for health professionals to build effective health care teams. According to the *Framework*, interprofessional collaboration is "a partnership between a team of health providers and a client in a participatory, collaborative and coordinated approach to shared decision-making around health and social issues" (CIHC, 2010, p. 11). As stated by the CIHC, this framework is designed for health providers, thus it is not intended to guide collaborations between OTs and teachers. From the education practice literature, Hutchinson (2007) describes collaboration as entailing "teachers and other professionals learning from each other's experiences and working in teams where all members feel that their contributions are valued" (p. 39). Although this statement does not restrict collaboration to professionals from one sector to another, it is not explicit to OTs and teachers collaborating.

At the regulatory level for occupational therapy, the Association of Canadian Occupational Therapy Regulatory Organizations has stated, as part of the *Essential Competencies of Occupational Therapy Practice in Canada*, that "Occupational therapists use effective communication and collaborative approaches for safe, ethical and effective practice....[The OT] collaborates with [the] client, interprofessional team, and other stakeholders" (ACOTRO, 2011, p. 13). Furthermore, the Canadian Association of Occupational Therapists' *Profile of Practice of Occupational Therapists in Canada* (2012) describes collaborator as one of the seven roles within the profile of OT. The Ontario College of Teachers

(OCT), which regulates the teaching profession in Ontario, has also stated in its *Foundations of Professional Practice* that "collaborative partnerships...are among the foundations of learning communities" (OCT, 2010, p. 19).

Despite the acknowledgement from both the occupational therapy and education fields for the need for collaboration, there is no explicit mention of these professions collaborating with each other within their respective regulatory literature. In particular, the health literature envisages collaboration as existing between different health professions, without acknowledgement of the potential for collaboration across different sectors. Similarly, literature from the OCT specifically references collaboration with early childhood educators, but not with OTs (College of Early Childhood Educators & OCT, 2015). Such omissions may reveal a general lack of understanding on the part of both occupational therapy and teaching of professions outside their respective sectors, which in turn may lead to conditions that are not conducive to successful collaboration between these two professions. The current study goes beyond what is currently available in the collaboration literature for OTs and teachers by creating a competency framework explicitly designed to facilitate collaboration between these two professions.

Purpose and Objectives

The overarching purpose of this study was to develop a set of competencies for interprofessional collaboration between OTs and teachers. These competencies describe the attitudes, skills, knowledge, behaviours, and beliefs required of OTs and teachers for successful collaboration. Practically, these competencies led to the creation of a competency framework that can inform professional development of OTs and teachers. The overarching purpose was met through four objectives: (a) a scoping literature review of the tensions that exist in

collaborations between OTs and teachers, (b) a qualitative study of the experiences of the tensions and facilitating factors in collaborations between OTs and teachers, (c) an integration of the data from the first two objectives to develop a conceptual framework for collaboration between OTs and teachers, and (d) a distillation of the collected data to produce a competency framework. Guiding this work were the following research questions: (a) what tensions do OTs and teachers experience when collaborating? (b) what factors facilitate collaboration between OTs and teachers? (c) how is collaboration understood and enacted from OT and teacher perspectives? and (d) what competencies are required for OTs and teachers to successfully engage in collaboration?

According to Roegiers (as cited in Peyser, Gerard, & Roegiers, 2006), when competencies are effectively integrated into practice they should enable the learner to master those situations he or she will have to deal with in his or her professional life. Competencies have been promoted as a means of capturing the attitudes, behaviours, knowledge, and skills required to be a successful practitioner in any profession, while competency frameworks help learners make sense of the learning process, differentiate matters by relevance, apply learning to practical situations, and associate learning elements (CIHC, 2010). Although clearly defined uni-professional competencies are the norm across professions, defining interprofessional competencies has been a more difficult task because the fields of interprofessional education and collaboration are still not well understood (CIHC, 2010).

To facilitate knowledge mobilization, the Knowledge to Action (KTA) Process (Graham et al., 2006) was used to frame this study. Graham et al. (2006) describe the KTA process as turning knowledge into action. The KTA process is divided into two concepts: (a) knowledge creation, and (b) action. The process is fluid, and boundaries between the phases are permeable.

The authors depict knowledge creation as a funnel. As knowledge moves through the funnel it becomes further refined and presumably more useful to stakeholders (Graham et al., 2006).

Knowledge creation consists of three phases: knowledge inquiry, knowledge synthesis, and knowledge tools/products. Knowledge inquiry is analogous to the multitude of primary studies and information of variable quality that exists on a topic (Graham et al., 2006). Knowledge synthesis involves the identification, appraisal, and synthesis of information relevant to specific questions (Graham et al., 2006). Knowledge tools are products designed to clearly present knowledge in user friendly formats. These can take the form of practice guidelines, decision aids and rules, and care pathways, for example. The objective of knowledge tools is to influence what stakeholders do and facilitate the uptake and application of knowledge by meeting stakeholders' needs (Graham et al., 2006). The authors describe the action part of the process as a cycle that leads to the implementation or application of knowledge (Graham et al., 2006). The action cycle is based on theories of planned action, where the intent is to deliberately engineer change in groups. The phases of the action cycle influence each other and can be influenced by the knowledge creation phases (Graham et al., 2006).

The objectives of this study correspond to Knowledge Inquiry, Knowledge Synthesis, and Knowledge Tools of the KTA process. The first objective, a scoping review of the literature, was conducted to understand the points of tensions in collaboration between OTs and teachers. The scoping review followed the six-stage framework outlined by Arksey and O'Malley (2005) with recommendations by Levac, Colquhoun, and O'Brien (2010) and aligns with Knowledge Synthesis of the KTA Cycle.

The second objective was accomplished by interviewing OTs, teachers, and parents to understand collaboration between OTs and teachers in the Ontario context. Specific emphasis

was placed on behavioural event questions and what participants considered to be the competencies needed for collaboration. Interviews were audio recorded and transcribed verbatim. Interviews were then analysed using qualitative content analysis (Elo & Kyngas, 2008) using the software Atlas.ti (ATLAS.ti GmbH, 2016). The second objective corresponded to Knowledge Inquiry of the KTA Cycle. Data from the first two objectives were integrated to achieve the third objective, a conceptual framework for interprofessional collaboration between teachers and occupational therapists. The third objective of the study correspond with Knowledge Synthesis of the KTA Cycle.

For the fourth objective, a competency framework was created based on the data collected from previous objectives. This objective of the study corresponds to Knowledge Tools in the KTA Cycle. It is hoped that the competency framework will inform curricula for professional development of both OTs and teachers, in particular interprofessional education opportunities for these professions to learn together.

Defining Key Terms

The term *competency* has appeared frequently in literature since the 1980s; however, there is no single agreed open definition for competency (Venegas & Thill, 2015). Within this disseration, *competency* is operationalized as the as the attitudes, skills, knowledge, behaviours, and beliefs required for effective performance. *Professional competencies*, or *uni-professional competencies*, are competencies required to successfully perform the responsibilities of one's profession. *Interprofessional competencies* refer to the competencies needed to collaborate with other professions within the same sector. For instance, doctors collaborating with nurses or physiotherapists collaborating with OTs, since they are all within the health care sector. *Intersectoral competencies* refer to the competencies needed to collaborate with a professional

from a different sector. For instance, an OT collaborating with a teacher, since the OT is a member of the health care sector while the teacher is a member of the education sector. A *competency framework* is an assemblage of the different individual competencies required for effective performance in a specific job, job family (i.e., group of related jobs), organization, function, or process (Marrelli, Tondora, & Hoge, 2005). In this dissertation, the competency framework developed in Chapter 5 assembles the different individual competencies required for intersectoral collaboration between OTs and teachers.

Overview of the Thesis

The remainder of this thesis is composed of four manuscripts, an overall discussion, and appendices. Each manuscript corresponds to one of the four stated objectives. The first manuscript is a scoping review of tensions in collaborations between OTs and teachers. The second manuscript is a qualitative study of the experiences of tensions and facilitating factors in collaborations between OTs and teachers. The third manuscript is a conceptual framework for collaboration between OTs and teachers. The fourth manuscript is a competency framework for collaboration between these two professions. An overall discussion considers the thesis as a whole and reflects on how it contributes to the knowledge of collaboration, as well as its merits and limitations. Finally, the appendices provide important documents, including ethics approval for this study. Also in the appendices are the 28 competencies identified in the competency framework. These competencies are defined and given behavioural examples to create a knowledge tool for OT and teacher professional development.

Chapter 2

A Scoping Review of the Tensions in OT-Teacher Collaborations

The philosophy of educating students with special needs in mainstream classrooms has become an established norm in many jurisdictions (Winter, 2006). Special needs are considered those needs that require supports beyond what is ordinarily received in the school setting (Ontario Ministry of Education, 2016). This inclusive approach to education creates challenges for teachers, who must meet the educational needs of diverse students. The education literature acknowledges the importance of collaboration with professionals from other fields to meet the needs of students with special needs (Dettmer, 2009). Occupational therapists (OTs) assist some of these students through the provision of school-based occupational therapy (SBOT).

Although service models for SBOT vary within and across jurisdictions, the notion of promoting participation through occupation is common to the practice of occupational therapy (World Federation of Occupational Therapy, 2016). In particular, OTs support students with special needs by helping them develop the skills needed to succeed in school, such as social, organizational, and handwriting skills, among others (Ontario Society of Occupational Therapists, 2012). However, different service models of SBOT have tensions, at both the theoretical and practice level, that can engender difficulty in achieving the desired results of SBOT (e.g., Kennedy & Stewart, 2011; Sandler, 1997).

Historically, SBOT was offered by the OT withdrawing students from the classroom to provide therapy. Called the direct model, this style of therapy typically involved minimal collaboration between the therapist and teacher (Bayona, McDougall, Tucker, Nichols, & Mandich, 2006). Tensions within the direct model included poor communication between therapists and teachers (Gallivan-Fenlon, 1994; Sandler, 1997). Additionally, since OTs are

often expected to carry large caseloads of students, the one-on-one therapy in the direct model has not been seen as cost-effective (Sandler, 1997). These tensions led to a shift in service delivery from the direct model to a collaborative consultation model in the 1990s (Reid, Chiu, Sinclair, Wehrmann, & Naseer, 2006; Sandler, 1997).

The collaborative consultation model is characterized by a cooperative philosophy in which individuals with different expertise, perspectives, and experiences work together to develop intervention strategies and goals for students (Kemmis & Dunn, 1996; Santos & de la Libra, 2016). Such collaboration involves working for the same purpose with shared responsibility for goals, decisions, and problem solving (Santos & de la Libra, 2016). Additionally, Friend and Cook (2003) stressed that collaboration is a style of interaction between at least two "co-equal parties" (p. 7). However, tensions within the collaborative consultation model between OTs and teachers have also been identified. For example, conflicting philosophies of inclusion (Nochajski, 2001) and poor communication (Bose & Hinojosa, 2008) have been found to make collaboration difficult.

Although collaborative consultation has been promoted as "essential" to SBOT in practice literature (Whalen, 2002, p. 15), Bayona et al. (2006) have found that many therapists still use at least some direct therapy when practicing SBOT. Thus SBOT represents a continuum between the direct model and the consultative collaborative model—with tensions existing throughout. The existence of tensions is troubling considering the need for SBOT services. In 2008/09 in Ontario, for instance, OTs served 49.7% of the individuals seen by school health support services, while from 2007/08 to 2009/10 there was a 12% increase in the number of individuals receiving SBOT services (Deloitte & Touche, 2010).

Given the demand for SBOT, there is a clear need to elucidate the difficulties that exist when OTs and teachers collaborate with each other. Thus the purpose of this study was to conduct a scoping review of the literature to identify and analyze the tensions experienced by OTs and teachers when they collaborate in SBOT. It is hoped that this will provide a foundation for better supporting OTs and teachers to effect the ideals of collaborative practice. Although studies have reviewed literature on issues affecting collaboration in the past (e.g., Kennedy & Stewart, 2011; Villeneuve, 2009), this study intentionally cast a wide net to capture a greater breadth of articles than previous reviews and is the first to review tensions in collaboration since 2011.

Method

A scoping review was selected because it aligned with the study purpose of summarizing findings from relevant literature (Arskey & O'Malley, 2005). Scoping reviews serve to summarize broad topics where collating studies of different designs may be appropriate. Furthermore, unlike systematic reviews, scoping reviews do not need to assess the quality of studies, allowing for a greater quantity of data to be generated (Arksey & O'Malley, 2005). This review followed the scoping study framework described by Arskey and O'Malley (2005). The Arskey and O'Malley (2005) framework provides a rigorous procedure for: (a) identifying the research question, (b) identifying relevant studies, (c) selecting studies, (d) charting data, (e) summarizing and reporting results, and (f) consulting stakeholders. Recommendations proposed by Levac, Colquhoun, and O'Brien (2010) were also incorporated, as detailed in the following sections.

Scoping Review Question

The starting point of this study was to develop the research question. Both Arskey and O'Malley (2005) and Levac et al. (2010) recommend defining concepts to clarify the focus of the scoping study. Furthermore, Levac et al. recommend simultaneously considering the purpose of the scoping study while articulating the research question to provide a clear rationale for undertaking a scoping study and to facilitate decision making on article selection and data extraction later in the methodological process. From these recommendations, the following research question was developed: "What tensions exist in SBOT collaborations between OTs and teachers?" The question was made broad with collaboration in plural and omitting the word consultative to acknowledge that different models of collaboration are practiced between OTs and teachers. For the purpose of this review, tension was defined as any sort of challenge or barrier to effective delivery of the collaborative approach to SBOT.

Identifying and Selecting Studies

A search strategy was developed that would capture relevant articles from both occupational therapy and education literature. Occupational therapy literature was searched in the CINAHL database. CINAHL was selected because it provides the most comprehensive indexing of core journals in the field of occupational therapy (Potter, 2010). In addition, the American Journal of Occupational Therapy, the Australian Occupational Therapy Journal, the British Journal of Occupational Therapy, and the Canadian Journal of Occupational Therapy were electronically searched. These four journals were selected because they represented the national journals with the highest journal rankings in occupational therapy (Scimago Lab, 2016). Education literature was searched in the Education Source database and the Educational Resources Information Center (ERIC) database. Education Source was selected because it

contains the world's largest and most complete collection of full-text education journals (Concordia University Library, No Date), while ERIC is the world's most widely used index to educational-related literature (ProQuest, 2016). In addition, CBCA Education was also searched to include an education database that focuses on Canadian literature. Each database operated differently, resulting in different search terms (see Table 2.1). Articles were limited from 1990 to September 2016, since the 1990s is the decade collaborative consultation gained prominence in North America (Reid et al., 2006; Villeneuve, 2009), and needed to be available in full text and in English. A total of 262 articles were found through searching databases before redundancies were removed. In addition, three articles were found by hand searching reference lists of relevant articles, for a total of 265 collected articles. Abstracts of the retrieved articles were read for relevance. Abstracts that did not mention OTs and teachers working together were discarded. Removing irrelevant articles and redundancies eliminated 200 of the articles. The remaining 65 articles were read for relevance to the research question. Those that described OTs and teachers collaborating for the benefit of a student and noted tensions that impeded collaboration were then charted. Thirty articles proceeded to final analytic charting.

Table 2.1

Scoping Review Search Strategy

Database	**Interface**	**Search terms**	**Terms found in**
Education Source	EBSCOhost	teacher* AND occupational therap*	Abstract
ERIC	EBSCOhost	teacher* AND Occupational therap*	Abstract

CBCA Education	ProQuest	teacher* AND occupational therap*	Abstract
CINAHL	EBSCOhost	teacher* AND occupational therap*	Abstract
American Journal of Occupational Therapy	Ovid	teachers AND school based	Keywords
Australian Occupational Therapy Journal	Scholars Portal	teacher* AND occupational therap*	Abstract
British Journal of Occupational Therapy	Sage Premier	teacher* AND occupational therap*	Abstract
Canadian Journal of Occupational Therapy	Sage Premier	occupational therap* AND teacher* OR school based	Abstract

Note. Ovid did not contain articles from the American Journal of Occupational Therapy predating 01/01/2010.

Charting the Data

Charting the data was an iterative process. As recommended by Levac et al. (2010), the data charting form was repeatedly updated. Ultimately, the following information was charted: author(s), year of publication, place of origin, audience, profession of participants, tensions encountered by OTs and teachers, and whether the article was a peer-reviewed study or descriptive paper.

Consultation

Arskey and O'Malley (2005) and Levac et al. (2010) recommend a consultation stage with stakeholders as a means to enhance study credibility through stakeholders lending insights and validating the usefulness of findings. The findings of this scoping review were discussed with two therapists and an educator, each of whom are involved in pre-service education of OTs or teacher candidates, to ensure an appropriate search and charting strategies and appropriate interpretation of the data. Recommendations made during consultations were incorporated into the scoping review. Consultation is thought to enhance the likelihood that the results of the scoping review would be useful to practitioners and research consumers (Levac et al., 2010).

Findings

Summarizing and Reporting the Results

Of the 30 articles charted, 11 were from the USA, 7 were from Canada, 6 were from Australia, 5 were from the UK, and 1 was from Ireland. The 30 articles consisted of 24 peer-reviewed studies and six descriptive papers. Two of the 24 studies reported on the same research. Five of the articles were published between 1990 and 1999, 16 between 2000 and 2009, and 9 since 2010. Twenty-two of the articles were published in therapy literature, 20 specifically targeted toward OTs. Five articles were published in education literature, one article was in literature targeted to child care professionals, including teachers and health professionals, and one article was published in each of child health care worker literature and parenting literature. See Table 2.2 for a list of included studies.

Table 2.2

Scoping Review Data Charting

Reference	**Location**	**Informants**	**Data Collection Methods**
Agoratus, 1999	United States	Teachers, OT	Descriptive paper
Ait-Hocine, 1990	United Kingdom	Teachers, OTs	Interviews, surveys
Barnes & Turner, 2001	United States	Teachers	Survey, record review
Bayona et al., 2006	Canada	Parents, teachers, OTs	Pre- post-test quasi-experimental design, questionnaire
Blackwell & Dunn, 2016	United States	Teachers, OT, OT students, early childhood educator	Interviews
Bose & Hinojosa, 2008	United States	OTs	Grounded theory, interviews,
Brandenburger-Shasby, 2005	United States	OTs	Survey
Campbell et al., 2012	Canada	OTs	Interviews
Copley et al., 2011	Australia	OTs	Interviews, questionnaire, document review

Fairbairn & Davidson, 1993	Canada	OTs	Questionnaire, interviews
Graham & Maze, 1997	United Kingdom	Teacher, OT, PT	Descriptive paper
Homer et al., 2000	United States	OTs, SLPs, nurses	Descriptive paper
Hutton, 2009	United Kingdom	Teachers, EAs	Interviews
Jackman & Stagnitti, 2007	Australia	Teachers	Grounded theory, interviews
Kardos & White, 2005	United States	OTs	Survey
Kennedy & Stewart, 2012	Australia	OTs	Survey
Kovic, 1996	United States	Teachers, EA, OT, PT, SLP	Descriptive paper
Lindeman & Magiera, 2014	United States	Teachers, OT, SLP, interpreter	Descriptive paper
Missiuna et al., 2012a	Canada	Teachers, OTs	Pre-/post-test questionnaire, interviews
Mukherjee et al., 2002	United Kingdom	National Health Service staff (including OT)	Interviews

Nochajski, 2001	United States	Teachers, OTs, PTs, SLPs	Interviews
Patton et al., 2015	Ireland	Teachers	Interviews
Prigg, 2002	Australia	OTs	Interviews
Priest & May, 2001	Australia	Students, teachers, OTs, and other stakeholders	Survey
Reid et al., 2006	Canada	Teachers, OTs, parents	Pre-/post-test survey, questionnaire
Rens & Joosten, 2014	Australia	Teachers, OTs	Questionnaire, focus groups, interviews
Ross-Watt, 2005	United Kingdom	Teachers, EA, school psychologist, parent	Case study, observations, interviews, review meetings
Silverman & Millspaugh, 2006	United States	Teacher, OT	Descriptive paper
Villeneuve & Shulha, 2012	Canada	Parents, teachers, EA, OT, case managers, program administration	Developmental Work research methods, focused discussion sessions
Wehrmann et al., 2006	Canada	Parents, teachers, OTs, and service funders	Focus groups

A total of 102 instances of tension related to collaborative practice were reported across the 30 articles; however, a number of these tensions were common among the 30 articles. Eliminating redundancies yielded 46 unique tensions. Using an inductive analysis approach

(Patton, 2002), tensions were organized in a summary table for a cross-comparison thematic analysis. This analysis identified three overarching categories of tensions: (a) professional socialization, (b) person-level tensions, and (c) environment-level tensions.

All tensions were separated into their respective categories and the process was repeated to yield themes. This was an iterative process, with tensions moved between themes, into new themes, and across categories until a best-fit was achieved. Categories and themes of the scoping review are presented in Figure 2.1.

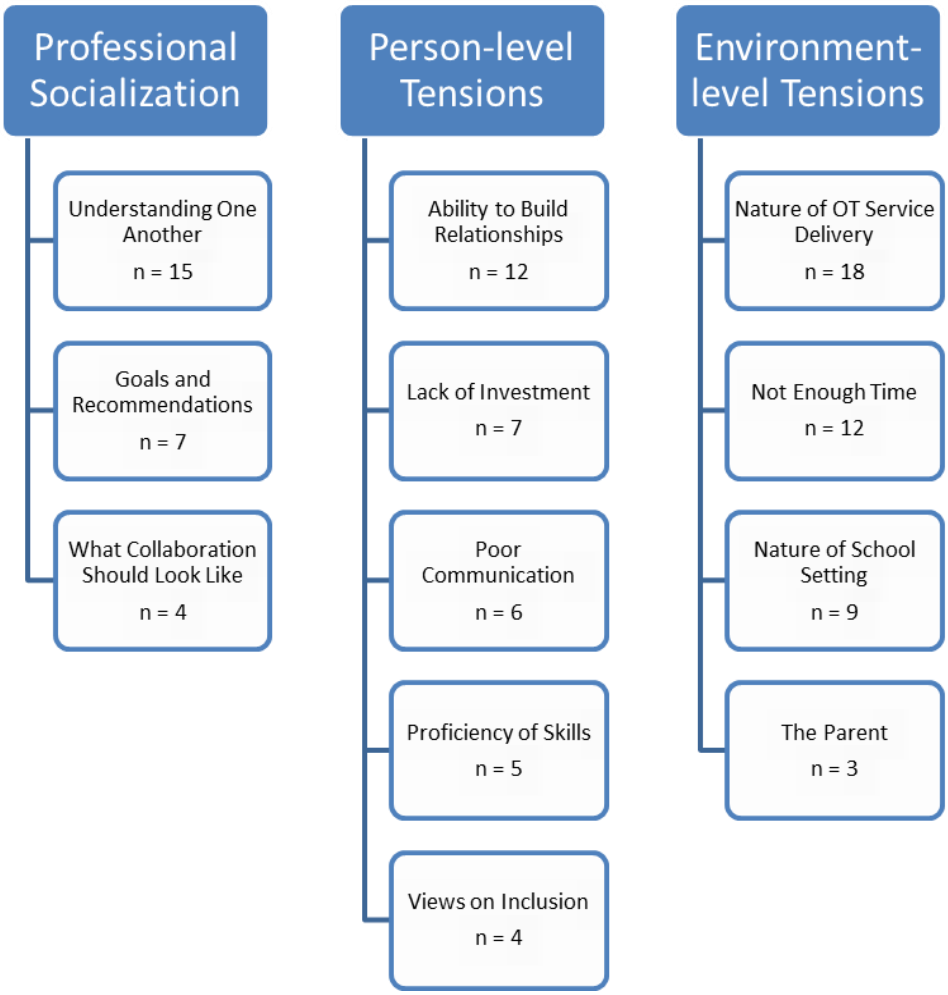

Figure 2.1. Scoping review categories and themes with number of times a tension appears in a theme (n = 102).

Professional Socialization. Tensions in this theme result from the adoption of the professional culture, knowledge, and habits of OTs' and teachers' respective fields. This category contained three themes: (a) understanding one another, (b) goals and recommendations, and (c) what collaboration should look like.

Understanding One Another. Understanding one another relates to how familiar the OT and teacher are with the role of their counterpart and how well each understands the professional vernacular of their counterpart. Specifically, this theme comprised tensions that reflect a lack of understanding of what occupational therapy is and its role in the school setting on the part of teachers, a lack of understanding about the education system on the part of the OT, and the OT and teacher speaking different professional languages. For example, in a survey of 143 teachers in Ontario, Fairbairn and Davidson (1993) found that nearly half of the respondents were unclear about the roles and responsibilities of OTs in schools. Furthermore, they found that over one third of respondents perceived OTs as lacking an adequate understanding of the nature, functioning, and needs of schools (Fairbairn & Davidson, 1993). Similarly, in a more recent study with 51 participants (17 regular educators, 12 special educators, 7 OTs, 7 physical therapists, and 8 speech-language pathologists) in New York State, Nochajski (2001) found that 43.1% of the participants reported a lack of knowledge about the expertise of other professionals. A teacher in an Australian study by Rens and Joosten (2014) illustrated this lack of understanding of the role of the OTs in schools when she said, "I thought, children don't have an occupation… they don't work…. Why do they need an occupational therapist?" (p. 153).

Goals and Recommendations. Goals and recommendations reflects tensions that arise when the OT makes goals or recommendations for the student that are not appropriate for the classroom context, or when the teacher makes goals or recommendations for the student that are

not developmentally appropriate. For instance, an OT's goals for a student may not be educationally relevant or recommendations may be unrealistic. For example, in an Australian study of collaborative practices, one teacher remarked that "recommendations made by occupational therapists were at times, 'brilliant ideas on paper' (Celine, teacher), but often impractical in terms of the teacher's responsibilities and the realities of the classroom environment, school and Education Department expectations" (Rens & Joosten, 2014, p. 154). In another example, an Irish study of OTs and teachers collaborating for handwriting found that conflicting perspectives arose regarding sequencing of teaching letters, with teachers preferring lower case letters taught first, based on literacy, while OTs preferred upper case letters taught first, based on a developmental approach within the context of students' motor skills (Patton, Hutton, & MacCobb, 2015).

What Collaboration Should Look Like. This theme comprised tensions that reflected confusion or disagreement over what the collaboration between the OT and the teacher should look like. Tensions in this theme included perceived differences in priorities (e.g., assessment vs consultation), the teacher preferring a model of therapy different from what the therapist offered, and teachers confused by the process of the collaborative consultation model of therapy. For example, in a British study, Hutton (2009) found teachers did not appreciate when OTs withdrew students from the class, as they felt it interrupted student learning. Whereas Campbell, Missiuna, Rivard, and Pollock (2012), in a study of therapy that targeted whole classes rather than individual students in the class, found that some OTs struggled when teachers preferred students to be withdrawn from the classroom for therapy, contrary to the intended role of the therapist collaborating with the teacher. As well, Wehrmann, Chiu, Reid, and Sinclair (2006), in a study of the benefits of SBOT for students with fine motor difficulties, found teachers were confused

by and not prepared for a collaborative consultation process. According to Wehrmann et al., participants felt that the confusion could affect following through of strategies, time for OTs to model strategies, and ultimately affect student outcomes.

Person-Level Tensions. Person-level tensions are those tensions that arise from characteristics and viewpoints that are inherent to either or both of the OT and teacher. This category contained five themes: (a) ability to build relationships, (b) lack of investment, (c) poor communication, (d) proficiency of skills, and (e) views on inclusion.

Ability to Build Relationships. Ability to build relationships focused on tensions that impeded the OT and teacher from forming a co-equal relationship. These tensions included personality conflicts, developing goals unilaterally, the OT acting as an expert, inconsistent contact preventing a relationship from forming, the OT feeling unwelcome in the school/classroom, the teacher being defensive or closed to the OT being in the classroom, the teacher feeling insecure and judged by the OT, and feeling a loss of professional identity among special educators in the presence of OTs. A salient example of poor relationship building comes from an Australian study that aimed to capture the experiences of OTs and teachers collaborating in SBOT (Rens & Joosten, 2014). In the study, several teachers expressed their frustration with OTs who assumed the expert role in the relationship, without acknowledging the teacher's perspective (Rens & Joosten, 2014). One teacher commented, "I felt quite disempowered cause you're always having an expert telling you and you're just the person in the middle of the pie and you're getting told this and that," while another teacher said, "Please don't come in and tell me what's going on because I've only been doing this for 18 years so I'm starting to get a bit of a handle on it" (Rens & Joosten, 2014, pp. 154-155).

Lack of Investment. This theme comprised tensions that exhibit a lack of investment in collaboration on the part of the OT or the teacher. Tensions included teachers not following through on recommendations, lack of teacher receptiveness to collaborating, the perception that collaboration is too time consuming, insufficient follow-up by the OT, and rushed—or "in-and-out" service, on the part of the OT. In-and-out service was described by an OT in a study by Campbell et al. (2012) as when "you fly in and you have a little snapshot, take a little picture, and treat that little piece of time, and then move on and come back six weeks later..." (p. 57). While not necessarily intentional, an in-and-out, rushed style of therapy does not lend itself to making an investment in collaboration. Lack of investment was cited as a tension seven times across the 30 reviewed articles.

Poor Communication. This theme focused on the difficulties that OTs and teachers have communicating with each other. Tensions in communication were cited five times across the reviewed articles, including lack of communication, being left out of the loop, and low quality feedback. Being left out of the loop described how OTs felt in one study when other members of a student's education team were informed about upcoming individual education plan meetings but the OTs were not informed until after the meeting occurred, causing them to feel "excluded from the team" (Bose & Hinojosa, 2008, p. 294). Blackwell and Dunn (2016) found OTs occasionally offered low quality feedback to teachers. Such low-quality feedback involved simplistic remarks that lacked meaning or content (Blackwell & Dunn, 2016). According to Blackwell and Dunn, although comments from the OT such as "great" or "exactly" may encourage the teacher, they lack focus or reflection. High-quality feedback offers positive praise that is also specific, instructive and builds on strengths to address weaknesses.

Proficiency of Skills. Proficiency of skills reflected the tensions that occurred when either the OT, the teacher, or both were not proficient in a skill necessary to collaborate or to follow through on recommendations. Tensions in this theme included lack of specific therapy skills on the OT's part, feeling inadequately prepared for SBOT upon graduation on the OT's part, the teacher's inability to incorporate recommended assistive devices, and difficulty with time management. Difficulty with time management arises from poor planning of the time OTs and teachers have to meet. Barnes and Turner (2001) captured the frustrations felt by teachers experiencing time management issues. For example, one teacher remarked, "The OT and I talk whenever we can meet. Nothing is scheduled" (p. 87). This tension underscores how poor planning of time can further compound the environment-level tension that arises from having a limited amount of time to collaborate.

Views on Inclusion. Tensions in this theme focused on OTs and teachers not sharing the same views on inclusion, such as conflicting philosophies about special education, or the teacher not agreeing with integration. For example, an American study on OTs' interactions with teaching staff found that teachers' philosophies were at times interpreted by OTs as impeding therapy. For instance, OTs commented that the emphasis some teachers place on order as a style of classroom management prevents those teachers from adopting strategies for the student suggested by the OT (Bose & Hinojosa, 2008). As another example, in an Australian study on OTs' experiences transitioning students with special needs into schools, one OT noted that transitions have not worked when the prevailing attitude of the teacher has been, "we really don't want this child at this school but we don't have any choice about it" (Prigg, 2002, p. 107). According to the author, teachers' negative attitudes regarding students with special needs in

their class appeared to be a contributing factor to OTs not feeling comfortable working with the teacher (Prigg, 2002).

Environment-Level Tensions. Environment level tensions are those tensions that are situated within the environment in which the collaboration is embedded. These tensions are often at the systems level and frequently beyond the control of the individual OT or teacher. This category contained four themes: (a) nature of OT service delivery model, (b) not enough time, (c) nature of the school setting, and (d) the parents.

Nature of Occupational Therapy Service Delivery. Tensions related to how occupational therapy services are delivered in the school system were cited more frequently than any of the other tensions that emerged in this scoping review, at a total of 18 times across the reviewed literature. Specific tensions included the inadequate number of OT visits, the inconsistent nature of the visits, the size of the OT caseload, the OT having to prioritize his/her caseload, the long wait time between referral and OT service, and the visiting nature of the OT limiting access the OT and teacher have to each other. In a British study, Mukherjee, Lightfoot, and Sloper (2002) found the visiting nature of the OT made scheduling meetings between OTs and teachers difficult since both spend most of their day working in locations different from each other. Teachers in a Canadian study by Villeneuve (2012) described how the visiting nature of OTs meant the schedules of the collaborating professionals often did not align. One teacher, for instance, said, "Teachers are not necessarily going to be available at times when the therapist is scheduled to be at the school" (p. 299). Bayona et al. (2006) found that the majority of therapists surveyed considered the primary barrier to collaboration to be the limited number of visits they could make, while a number of teachers in the same study commented that visits should have been spaced more consistently and closer together.

Not Enough Time. This theme reflects the tensions related to the lack of time that OTs and teachers have to collaborate with each other. This theme includes scheduling conflicts between OTs and teachers, OTs not having enough time to visit the student's class, teachers not having enough time to meet with the therapist, and when meetings do occur they are too brief. In an Australian study by Prigg (2002), for example, OTs described having to juggle limited time to meet teachers' schedules as difficult. Similarly, in a Canadian study evaluating SBOT for students with fine-motor difficulties by Bayona et al. (2006), teachers commented that due to busy schedules, the time they had to meet with OTs and review suggested strategies with them was too brief. As Patton et al. (2015) point out, not having enough time to collaborate is problematic because collaborative goal setting and designing accessible curricula are complex processes that require ongoing contact between the OT and teacher when working with children with special needs.

Nature of School Setting. The nature of the school setting also presented tensions in collaboration. Tensions in this theme included the teacher having responsibility for the whole class, a lack of funds on the part of the school system to utilize occupational therapy to its full potential, a lack of support from school administration for collaboration, school administration setting a reluctant or defensive tone, and difficulty for therapists to gain access to the student when hired by a parent. For example, in Prigg (2002), one OT made note of how teachers are often so busy looking after all the students in the class, they do not have time to collaborate with the OT. Specifically, she said, "The teacher has to look after the whole class and therefore I found it hard to find time to communicate with them [the teachers] as I needed to do, and even over the phone it's hard" (Prigg, 2002, p. 106). In an American study, Nochajski (2001) interviewed 51 professionals consisting of regular and special educators, OTs, physical

therapists, and speech and language therapists on the nature of collaboration in the school setting. Nochajski found the barrier to collaboration most frequently cited by participants (88.2%) was a lack of support from school administrators. This lack of support was evidenced by school administrators either not providing enough time or not providing any time for therapists and teachers to meet. As another example, in a descriptive paper from America, Agoratus (1999) pointed out that the OT she and her husband hired privately needed special permission to work with their daughter at her school, since the school was under no obligation to allow a privately contracted therapist on school grounds.

The Parent. Tensions that result from the parent(s) of the student are captured in this theme. Tensions included parents withholding consent to pass information about the student from the OT to the teacher, and parents not following up on OT recommendations for the student at home. Withholding or needing to constantly receive consent from the parent to pass information about the student from the OT to the teacher was cited as a tension by Mukherjee et al. (2002), in a study of different health system professionals who collaborate with teachers in the UK. Five of the 22 participants commented that having to obtain parental consent delayed the speed at which they could pass on information to teachers (Mukherjee et al., 2002). Parents not following up on OT recommendations for the student at home was a tension identified by 50% of OTs participating in a Canadian study by Bayona et al. (2006), which could lead to slower goal attainment by the student.

Discussion

The purpose of this scoping review was to examine tensions that can occur when OTs and teachers collaborate to address a student's functional or educational needs. Of the 30 articles included in this scoping review, 25 were published since 2000, indicating a growing recognition

that tensions exist and need to be explicated to improve collaboration between OTs and teachers. Interestingly, 22 of the articles were published in therapy literature, while only five articles were published in the education literature. This may be attributable to the tensions present in occupational therapy service delivery models, such as the visiting nature of OTs in the school. Other possible reasons may also apply. For instance, OTs are trained to consider not only the student and the student's occupations, but also the environment within which the student is situated. This may attune OTs to notice a wide array of tensions in the school environment. However, despite the imbalance of articles from the occupational therapy literature, it is unlikely the insights of OTs were privileged over teachers, since over half of the articles included teachers as informants.

The results of this scoping study reveal how collaboration between OTs and teachers can be potentially stymied by tensions caused by professional socialization, as well person-level and environment-level tensions. Professional socialization, including pre-service and in-service training and on-the-job experiences, shape the lenses through which OTs and teachers view their work, as well as their understanding of each other and what collaboration should look like. Such professional socialization is further compounded by the different frames of reference subscribed to by OTs and teachers, that is, health and education, respectively. These differing frames of reference can lead to tensions in the collaboration when OTs or teachers make goals or recommendations that are inappropriate when viewed through the lens of their counterpart, when teachers do not make referrals or make inappropriate referrals to occupational therapy due to a lack of understanding of what OTs do, or when a professional expects the collaboration to look a certain way based on past experiences. Furthermore, acting as an expert may be an artefact of the professional socialization of OTs that places an emphasis on the OT being an "expert in

enabling occupation" (Canadian Association of Occupational Therapists, 2012, p. 2) and thus not seeing the teacher as a co-equal within the collaborative partnership.

Person-level tensions arise from aspects of one or both of the OT or teacher. Poor communication, proficiency of skills, relationship building, lack of investment, and views on inclusion can lead to one of the collaborative partners being left out of the loop, recommendations not being followed, or a poor working relationship between the OT and teacher, among other issues (e.g., Bose & Hinojosa, 2008; Nochjaski, 2001; Prigg, 2002). Environment-level tensions are a result of the context that the collaboration is embedded within. Not having enough time for collaboration, the nature of occupational therapy service delivery, the nature of the school setting, and students' parents can result in hastily developed goals and curricula, lost opportunities between referral to occupational therapy services and the first visit by the OT, and difficulty for the OT accessing the teacher and student when hired privately by a parent, among other issues (e.g., Agoratus, 1999; Barnes & Turner, 2001; Werhmann et al., 2006).

Although the categories and themes were distinct, there are clear connections between themes within and across categories. For example, the inadequate number of OT visits is part of the theme nature of OT service delivery, which is at the environment-level. An inadequate number of visits can lead to inconsistent contact between the OT and teacher (Bayona et al., 2006), which is a tension in the relationship building theme.

Not having enough time is another environment-level theme that can have an effect at the person-level. For instance, feeling pressed for time can lead to the perception that collaboration is too time consuming (Nochajski, 2001), which is a tension within the lack of investment theme. Another example is the OT acting as an expert. The OT acting as an expert is a tension within

the theme of relationship building because it negates a co-equal status between the OT and the teacher. The OT may consciously view herself or himself as the expert; however, the role of expert may be enacted unintentionally as well. Rushed—or "in-and-out"—service is a tension within the lack of investment theme. If, in their rush, an OT provides recommendations without seeking and incorporating the insights of the teacher, the OT may unintentionally create an impression that they are to be regarded as an expert (Blackwell & Dunn, 2016). Whether done consciously or not, developing goals unilaterally can affect the relationship between the two professionals. Furthermore, developing goals unilaterally may also lead to goals and recommendations that are not educationally relevant or are unrealistic (Prigg, 2002), which is a different theme.

Implications

The tensions identified in this study can have profound negative effects on collaboration between OTs and teachers and thus should be addressed. However, as these tensions have differing root causes, including social, personal, and environmental causes, there is no one solution that could act as a panacea. Following are possible actions for addressing some of the identified tensions.

Tensions caused by professional socialization may be addressed through in-service and pre-service interprofessional learning opportunities. Having OTs and teachers learn about and alongside each other would enhance the understanding of each other. Calls for such interprofessional learning have been made by others (e.g., Patton et al., 2005; Wehrmann et al., 2006).

Tensions that arise from different views on inclusion may be rooted in personal beliefs, including beliefs about equity, past experiences, and the lack of supports needed to enact

inclusion. Indeed, inclusive education has created situations where many teachers have multiple students that require additional supports, such as EAs, but have not been provided with the supports they deem necessary. As one teacher in a 2017 CBC Newfoundland report on inclusive education said, "I could not physically do it on my own.... I could not address the needs of that class because the support was not there. The resourcing was not there" (Cooke, 2017, para. 20). Convincing OTs and teachers of the benefits of inclusion may require pre-service education on the topic, as well as provision of resources to make carrying out extra activities associated with inclusion less onerous for teachers (Prigg, 2002).

The tensions that result from acting as an expert raise the question of the appropriateness of employing consultation as a means for OTs to work with teachers, since it implies an expert status and works against the notion of co-equal partners in collaboration. This issue has also been noted by others (e.g., Bose & Hinojosa, 2008; Nochajski, 2001). Tensions that result from acting as an expert also call into question whether elevating one's self to expert level is compatible with a client-centred practice, especially given the potential damage it may do to the collaborative partnership that is supposed to exist for the benefit of the client (Bose & Hinojosa, 2008; Kennedy & Stewart, 2012). In fact, Bose and Hinojosa (2008) recommend that OTs forego the role of the expert consultant and adopt the role of a team member when collaborating with teachers. Such a change may be more difficult for OTs who have extensive experience in the role of consultant, but may be easier for newer therapists.

Many of the tensions within the nature of occupational therapy service delivery focused on the visiting nature of the OT. Placing the OT within the school system, whether through co-

locating of services or direct employment, instead of being a visiting outsider, may alleviate some of these issues. For instance, in a descriptive paper from the United States, Silverman and Millspaugh (2006) describe the benefits of an OT sharing an office with a learning support teacher. They found that by sharing an office, the OT and learning support teacher were able to maintain stronger communication and develop a better partnership. The OT noted that

> For help to be meaningful and practical, it must be based on what actually goes on in the classroom setting. I now have the opportunity to uncover ways to make my therapy sessions more relevant and useful by maintaining my OT base of operations within the context of the learning support program. (Silverman & Millspaugh, 2006, p. 4)

Embedding OTs within the school system has already been successfully piloted in both Canada, through the Partnering for Change program (Campbell et al., 2012), and in the United Kingdom, through the Occupational Therapy Into Schools program (Hutton, 2008; Hutton, 2009). Campbell et al. (2012) studied a service delivery model that saw seven OTs embedded in 10 Ontario schools. Each therapist spent one full day per week in their assigned school(s) for between five to nine months where they worked with teachers to identify children with coordination difficulties, and subsequently trial and demonstrate strategies that support the children's functioning in school (Campbell et al., 2012). They found the therapists felt being in the schools on a consistent basis allowed them to become part of the school community and build stronger relationships with teachers, which contributed to building genuine collaborative partnerships (Campbell et al., 2012).

Such changes may need to be enacted at the regulatory level. For example, for pre-service learning opportunities to be widely adopted, new accreditation standards for OT and teacher education programs may be required. Other changes, such as embedding OTs within the school system, may require changes at the ministerial level to affect funding formulas for school board employees. Some positive change is already underway. Ontario, for example, has

recently taken steps through its Special Needs Strategy to improve the provision of occupational therapy services to children with the goal of seamless delivery of services from birth through school years (Ontario Ministry of Children and Youth Services, 2016).

Other means of effecting positive change have also been identified. Rens and Joosten (2014), for example, found teachers appreciated recommendations from OTs that could be used with the whole class, rather than requiring one-on-one intervention from the teacher. One teacher commented, "I can pick that up and the whole class can do it, and you've got a lot more chance of me doing that than doing a one-on-one program" (Rens & Joosten, 2014, p. 154). Kennedy and Stewart (2011) suggest a number of other potential strategies to improve collaboration. These strategies include providing OTs and teachers with good evidence that collaboration works, providing mentoring and role models to collaborating OTs and teachers, and being flexible about meeting places or technology such as phones or video links to enable meetings, among other strategies.

Whatever steps are taken to address the tensions identified in this review, they should be done using participatory approaches that engage both professions to better ensure their commitment and a shared vision of what it means for OTs and teachers to collaborate with each other. Although not an exhaustive list, these suggestions may help to address some of the tensions that can exist between OTs and teachers when collaborating and result in a better collaborative experience.

Future Directions

The articles reviewed in this study cited 46 unique tensions. Some of the articles (e.g., Campbell et al., 2012; Hutton, 2009) have reported on changes in service delivery whereby OTs have been embedded within the school. The aim of these studies was to provide SBOT within

the context of the whole school rather than focusing on individual children (Campbell et al., 2012; Hutton, 2009). Both of these studies found positive changes in the collaborative partnerships between OTs and teachers. In order to effect positive, systemic change in the ways OTs and teachers collaborate, there will need to be more high quality research investigating potential methods for improving the collaboration experience. In addition to the environment-level changes in service provision investigated by Campbell et al. (2012) and Hutton (2009), emphasis should be placed on investigating potential means of alleviating tensions at the person-level.

One future direction would be to implement an interprofessional educational component to the pre-service and in-service education of OTs and teachers so that they better understand each other's professional contributions to collaboration and can begin to form a shared vision across both professions of what collaboration can look like. Whereas there is a history of interprofessional education between OTs and other health professions (e.g., Gilbert, 2010), there is a dearth of literature on formal interprofessional training between OTs and teachers at either the pre-service or in-service levels. Additionally, findings from this study (e.g., proficiency of skills) indicate that there are specific competencies required for effective collaboration. Prior to any interprofessional learning opportunities, it would be pertinent to elucidate the competencies needed for OTs and teachers to collaborate with each other and develop a competency framework that could be used to guide curriculum development for such interprofessional learning opportunities.

Limitations

There are several important limitations of this review that should be noted. The search strategy was designed to capture English language studies from a limited number of databases. It

is possible that studies in other languages have captured tensions not found in this review. As well, including other databases may have yielded additional articles. Articles that were reviewed were not evaluated for study quality, as this is not an objective of scoping reviews (Arksey & O'Malley, 2005). As such, articles with less than rigorous methodology may have been included in this review.

Additionally, the regulations guiding SBOT and the training that OTs and teachers receive varies across jurisdictions and can change over time. Furthermore, different school systems employ different types of teachers who are expected to collaborate with OTs (e.g., elementary classroom teachers, secondary classroom teachers, learning resource teachers, etc.). As well, different school systems engage occupational therapy services differently; in some jurisdictions, OTs are directly employed by school boards, while in other jurisdictions OTs are contracted through outside agencies. OTs that are contracted from outside agencies are essentially guests in schools, which may further complicate issues of co-equality between the OT and teacher. Thus, these findings may be applicable to many instances of collaboration between OTs and teachers, but should not be considered generalizable to all such cases.

Conclusion

OTs and teachers collaborate with each other to enhance student participation in the school environment and improve students' abilities to access curricula. Collaboration between these professions can be impeded by tensions at the level of the person and the environment and these tensions can influence each other. Short and long term strategies at the in-service and pre-service level should be adopted to address these tensions to improve the experience of collaboration between OTs and teachers.

Chapter 3

Understanding the Enabling Factors and Tensions in OT-Teacher Collaborations

With the emergence of the concepts of normalization in the 1960s (Nirje, 1969), integration in the 1970s, and the ideals of equity and opportunity of inclusive education in the 1980s, there has been a steady increase in the number of students with special needs in mainstream classes (Thomazet, 2009; Winzer, 2006; Winzer, 2008). The inclusion of students with special needs in mainstream classes has implications for occupational therapists (OTs) because many students with special needs require occupational therapy services to support their access to education (Case-Smith & Cable, 1996; Prigg, 2002). Indeed, there has been a growing demand for school-based occupational therapy (SBOT) services (Deloitte & Touche, 2010). In Ontario, for instance, there was a 12% increase in the number of individuals receiving SBOT services from 2007/08 to 2009/10 (Deloitte & Touche, 2010).

OTs engaged in SBOT collaborate with teachers to identify aspects of students' function or occupational performance that may be impeding their participation in play, learning, and social experiences that occur within the context of school (Ontario Society of Occupational Therapists [OSOT], 2014; Rodger & Ziviani, 2006). Collaboration, however, is defined in numerous ways (D'Amour, Ferrada-Videla, San Martin-Rodriguez, & Beaulieu, 2005). In a review of 17 papers that defined collaboration, D'Amour et al. (2005) found that the most commonly mentioned concepts in definitions of collaboration were sharing, partnership, interdependency, and power.

Similarly, there is a range of SBOT service delivery models, which represent varying levels of collaboration (Rodger & Ziviani, 2006). Such service delivery models include OTs directly providing service to students with special needs, OTs collaboratively consulting with

teachers for a student with special needs, and OTs collaborating with and coaching teachers to build their capacity focusing on whole classrooms (OSOT, 2015). Furthermore, although a number of studies have found positive outcomes from collaboration between OTs and teachers (e.g., Niehues, Bundy, Mattingly, & Lawlor, 1991; Ratzon et al., 2009; Reid, Chiu, Sinclair, Wehrmann, & Naseer, 2006), many studies have also found tensions in collaborations between OTs and teachers (e.g., Bose & Hinojosa, 2008; Nochajski, 2001; Patton, Hutton, & MacCobb, 2015; Rens & Joosten, 2014). This is not surprising considering interprofessional collaboration in general has challenges (Freeth, 2001) and, when OTs and teachers collaborate, there is an added dimension of collaborating not just across professions, but across different sectors as well.

Past research on collaboration between OTs and teachers has largely focused on models of service delivery, outcomes of SBOT, or tensions in service delivery. Notably, Bose and Hinojosa (2008) conducted a grounded theory study to describe the perspectives of school-based OTs' interactions with teachers. Although this study described benefits and tensions in collaboration, it did not describe skills or other enabling factors required for collaboration, and was limited to OTs as participants. Considering the different frames of reference subscribed to by OTs and teachers—namely, health and education, respectively—it is important to incorporate both of these professions as informants to gain a nuanced understanding of collaboration between them.

Given the growing demand for SBOT and the difficulties inherent in collaborating across professions and sectors, there is a need for such an understanding of collaboration between OTs and teachers. The purpose of this study was to develop an understanding of the tensions and enabling factors required for collaboration between OTs and teachers with a view to improving collaboration between these two professions. This research was guided by the following

questions: (a) how is collaboration understood and enacted from the OT and teacher perspectives? (b) what tensions do OTs and teachers experience when collaborating? and (c) what factors enable meaningful collaboration between OTs and teachers?

Methods

This study used a qualitative research approach to develop an understanding of collaboration between OTs and teachers. A qualitative approach was selected because it would allow for an exploration of collaboration through inductive interpretations of the participants' experiences. Qualitative data were gathered through interviews, which allowed for the collection of thick descriptions (Geertz, 1973) of intersectoral collaboration from the participants.

Research Design

The study design included interviewing OTs and teachers with experience collaborating, as well as parents of students who have received SBOT services. Qualitative content analysis (Elo & Kyngas, 2008), using the inductive method, was used to analyze data, from open coding to developing categories and abstractions. Although this was not a grounded theory study and did not seek to create a grounded theory, it did seek to create a conceptual understanding of the phenomenon of study from the ground up. Elo and Kyngas (2008) consider qualitative content analysis a "systematic and objective" (p. 108) form of data analysis to enable the development of conceptual models. Specific grounded theory analysis techniques that were complementary to qualitative content analysis were used to increase the rigour of data analysis in this research. These techniques included constant comparison and theoretical memo writing (Charmaz, 2006; Corbin & Strauss, 1990).

Participants

To best gather rich information on collaboration between OTs and teachers, purposive sampling was employed to recruit participants from both professions who had collaboration experience. Parents of children who had received SBOT were also sought, based on the assumption that their experience of their child receiving SBOT could provide valuable insights into collaboration between OTs and teachers. Prior to contacting potential participants, ethical clearance was granted by the Queen's University General Research Ethics Board (Appendix A). Ethics approval was also granted by the Algonquin and Lakeshore Catholic District School Board and another school board that requested anonymity (Appendices B and C).

Upon receiving ethics approval, the special education coordinators of both school boards distributed a Letter of Information (Appendix D) to their teachers with experience collaborating with OTs. This appeal yielded two participants. An internet-based directory of OTs, *OT Finder*, operated by the Canadian Association of Occupational Therapists, was used to find OTs with experience in SBOT. Six OTs found on *OT Finder* were contacted, three of whom agreed to participate. Professional contacts yielded an additional six participants: two OTs, two teachers, and two parents. Snowball sampling resulted in another two participants: one parent and one teacher. In total, 13 individuals participated: 5 OTs, 5 teachers, and 3 parents. The range of roles, experience levels, and employment type produced a sample that broadly represented the population of interest, an important factor in ensuring accuracy of data collected (Marrelli, Tondora, & Hoge, 2005).

Occupational Therapists

Each of the five OT participants were female, which is not surprising given that approximately 93% of the Ontario occupational therapy workforce is female (Canadian Institute

for Health Information, 2012). The OTs had between 2 and over 30 years' experience working with children. Four of the OTs worked in Eastern Ontario, while one worked in Ontario's Golden Horseshoe region. One OT worked for a community-based centre for children with special needs, one worked in a Children's Treatment Centre, and three worked for private companies. The OTs were given the pseudonyms Lucie, Sarah, Susan, Monica, and Clara.

Teachers

Four of the five teacher participants were female. This is representative of the teaching profession in Ontario, which is approximately 75% female (Ontario College of Teachers, 2015). The teachers had between 6 and 32 years' experience working as teachers. Three of the teachers worked in Eastern Ontario, while two worked in Ontario's Golden Horseshoe region. Two of the teachers worked as elementary classroom teachers, one as a high school teacher, and two as elementary resource teachers (i.e., teachers that support classroom teachers in the inclusion of students with special needs). The teachers were given the pseudonyms Andrew, Kate, Nora, Anna, and Marie. Andrew and Kate were elementary classroom teachers, and Nora was a high school classroom teacher, while Anna and Marie were resource teachers.

Parents

All three of the parent participants were female. One parent, from Eastern Ontario, was the mother of a son with autism spectrum disorder. Currently in high school, her son received SBOT since he was a child. Another parent lived in the Golden Horseshoe where her daughter attended elementary school and received SBOT for developmental coordination disorder. Another parent was the mother of a boy in an Eastern Ontario elementary school. Her son had autism spectrum disorder, although his main reason for SBOT was fine motor control. Parents were given the pseudonyms Birgit, Nicole, and Jessica.

Data Collection

All potential participants were sent a Letter of Information (Appendices D, E, and F) explaining the purpose of the study, estimated length of interviews, and anonymity of responses. Individuals who agreed to participant selected the time and location of their interview in order to increase convenience for participants and to help make participants more comfortable during the interview. All interviews were conducted one-on-one. Prior to beginning the interview, participants were given two copies of a consent form to sign (Appendix G). One copy was retained by the participant, one by the researcher. As well, participants were given a brief verbal explanation of the purpose of the study and any questions they may have had were answered.

To develop rich descriptions of collaboration between OTs and teachers and the factors that act as enablers and tensions in collaboration, semi-structured interviews were used. Interviews followed an interview guide (Appendix H) to ensure consistency in questions between participants; however, follow-up questions were also used to elicit more detail from participants (Patton, 2002). Specific emphasis was placed on what participants considered ideal collaboration to look like and what they considered to be best practices for collaboration. In addition, participants were asked questions about successful and challenging experiences collaborating so that enabling factors and tensions could be extrapolated from their stories (Marrelli et al., 2005). To ensure that relevant information was not missed, questions were added to subsequent interviews based on analysis of the preceding interviews. OT and teacher interviews typically lasted between 40 and 60 minutes each, while parent interviews were between 25 and 35 minutes. All interviews were digitally voice-recorded to ensure accurate, verbatim transcription and reporting of participants' responses. As a form of member checking,

interview transcripts were given to participants for review to allow suggestions of any changes or clarifications of their statements. One participant made minor editing suggestions.

Data Analysis

Data analysis commenced with an inductive approach. Qualitative content analysis was used to analyze data. Qualitative content analysis is a systematic and objective research method for describing phenomena (Elo & Kyngas, 2008). Through qualitative content analysis, words are distilled into fewer content-related categories. According to Cavanagh (1997), words and phrases classified into the same categories share the same meanings. Grounded theory techniques assisted in this endeavour by providing a rigorous framework for open and successive levels of coding of themes and superthemes. Following the recommendation of Corbin and Strauss (1990), analysis of the data began after the first interview. This ensured relevant information captured in the first interviews could be probed in subsequent interviews. Theoretical memo writing began with initial transcription of interviews and continued throughout the data analysis stage. Memo writing was used to develop thoughts and draw comparisons between the coded data (Charmaz, 2006).

The analytical software *Atlas.ti* (Atlas.ti GmbH, 2016) was used to facilitate coding all data. Interviews were coded with concepts as the basic unit of analysis (Corbin & Strauss, 1990). The coding procedure commenced with open coding to interpret the data and constant comparative methods to make analytic distinctions (Charmaz, 2006). As coding proceeded, the creation of new codes became increasingly sporadic, indicating a progression toward a practical level of saturation for the purpose of the study. However, vigilance was maintained for possible outliers that did not fit with preliminary conclusions, rather than excluding them as aberrant (Dewalt & Dewalt, 2002). This process yielded a total of 339 codes. To increase

trustworthiness of the analysis, one transcript each from an OT, teacher, and parent were also coded by the author's supervisor and compared with the author's coding to ensure sound interpretations of the data.

All codes were compiled into a list for a second cycle of coding. This stage was conducted to sort and synthesize the data, reassemble them in new ways, and to develop a sense of categorical and conceptual organization of the data from the open coding (Creswell, 1998; Saldaña, 2009). The second cycle of coding resulted in the identification of overarching superthemes. The 339 codes were then separated into their respective superthemes and the process was repeated to yield themes. Using an abductive approach, this process was reiterated, with codes moved between themes and superthemes, and new themes and superthemes created or collapsed into each other until a best-fit was derived from the data. The second cycle of coding resulted in 15 superthemes. The author's committee reviewed the results of the data analysis and their suggestions were incorporated into the work as a form of member checking.

Findings

Data analysis resulted in 15 superthemes. Twelve of these superthemes centred on enabling factors and transformative outcomes of collaborations between OTs and teachers (Table 3.1). The remaining three superthemes centred on tensions in collaborations between OTs and teachers (Table 3.2).

Table 3.1

Superthemes and Contributory Themes of Enabling Factors and Transformative Outcomes

Supertheme	Definition	Themes
Relationships	The connection between the OT and the teacher.	Having a trusting relationship, sharing co-equal status, creating a relationship, maintaining a relationship, seeing eye-to-eye, sharing insights and resources
Attitudes	The disposition or feeling toward something held by the OT or teacher.	Open to collaboration, motivated to collaborate, persistent
Skills	The OT or teacher's ability to do something.	Time management skills, ability to teach the other professional, organization skills, people skills, ability to respond to evolving context, creativity, patience, ability to stay regulated, ability to work independently, observation skills, communication skills
Knowledge	The knowledge and understandings possessed by the OT or teacher.	Understanding one another, understanding yourself & your practice, understanding context
Behaviours	Actions taken on the part of the OT or teacher.	Reflecting, tactfully influencing, managing responsibility, being genial, respecting boundaries, being proactive, being professional, including other

Beliefs	The ideas and concepts that the OT or teacher holds to be true.	Believing change can happen, believing others want to succeed too, confronting assumptions
Personality	The qualities and characteristics of the OT or teacher.	Having humour, being comfortable around others
Rooted in realistic practicalities	The OT or teacher is conscious of contextual factors and acts appropriately to the context.	Making appropriate goals and recommendations, accepting set-backs will happen, having realistic expectations, success matters, acknowledging different professional backgrounds, admitting not knowing
Willingness to improve	The OT or teacher is willing to try to ameliorate their shortcomings.	Willingness to change, willingness to learn
Facilitating actors	Those people beyond the OT and teacher who may also collaborate with the OT and teacher.	Resource teacher, paraprofessionals, parents, administration, key facilitator
Facilitating factors	Those factors that play a role in supporting or improving the collaboration between the OT and teacher.	Role of experience, meetings in person, resources to work with, professional development, access to one another, school characteristics

Transformative Outcomes	The positive change that can come about from effective collaboration.	Benefitting one benefitting all, moving towards greater collaboration, creating change

Table 3.2

Superthemes and Contributory Themes of Tensions

Supertheme	Definition	Themes
Environment-level tensions	Factors external to the OT or teacher that negatively affect collaboration.	Lack of funding, lack of time/access, bureaucracy, OT/teacher turnover, the parent, nature of OT service delivery, nature of school setting
Person-level tensions	Aspects of the OT or teacher that negatively affect collaboration.	Psycho-emotional tensions, different views on inclusion
Professional socialization	Adoption of the professional culture, knowledge, etc. of OTs' and teachers' respective fields.	Different opinions on what collaboration should look like

Note. Although not shown in Table 3.2, the inverses of facilitating themes also act as tensions. For example, a lack of knowledge, negative attitudes, etc. can also create tensions in collaboration.

Relationships

This concept underpins the ability of the OT and the teacher to collaborate effectively with each other. Central to the relationship is that it is built on trust and co-equal status. Trust occurs when there is a mutual sense of acceptance and freedom from judgement. In a trusting

relationship, it is okay to ask questions, seek clarification, or admit to not knowing something, without fear of being judged. Lucie, for example, described the need for trust when she said,

> You have to trust and be deserving of trust, because you know one of the things that has been damaging... is the teacher going to be willing to work with you if you give suggestions and he or she doesn't quite get it or doesn't know how to do it, and then you go bad mouth them to somebody, the parents or the principal? That's not a good thing. And vice versa, if the therapist is nervous about giving suggestions because they think the teacher is going to go say, "oh that's ridiculous," I think there needs to be trust on both sides, that we're both there trying to do a job. (Interview 2)

Sharing co-equal status denotes a relationship where partners engage in shared decision making as they work towards a common goal (Friend & Cook, 2000). In a co-equal relationship the flow of information between individuals is both ways, rather than one person—the expert—imparting information to a recipient.

The supertheme *relationships* also contains the themes creating the relationship and maintaining the relationship. Creating and maintaining relationships entail a willingness to work together, along with being supportive, respectful, and showing appreciation for each other's contributions to the collaboration. Seeing eye-to-eye is also important to the relationship. This means having a shared plan, shared goals, and shared understanding of the case (i.e., the student's needs and the collaboration based on those needs). Seeing eye-to-eye requires perspective taking on the part of both the OT and teacher. Relationships also benefit from the sharing of insights and resources. This can include sharing knowledge, observations, ideas, or resources.

Attitudes

Attitudes describes the disposition of OTs or teachers toward collaboration as well as how they tolerate difficulties in the collaborative process. Effective collaboration benefits from an open attitude toward collaboration. This includes the teacher being open to having an OT in

the classroom and both the OT and teacher having a positive view of each other. Additionally, both the OT and teacher need to be willing to try new things. Sarah described how some teachers avoid trying new things and how avoiding implementing new things can be detrimental for the student. She said,

> I get a lot of teachers who are like, "well, I'm really busy, yada yada yada." Whereas in the back of my mind I'm going, yeah, but there are lots of teachers who make it a priority, I know you are busy but, if you don't do this for this child, nobody will. (Interview 1)

Both the OT and the teacher also need to be keen to collaborate. This involves being motivated to collaborate and communicating that motivation to each other. Nora described an experience that illustrated the importance of being keen. She recounted how an OT once left a post-it note on her desk to inform her that she had just seen a student of Nora's. Nora felt this reflected a disinterest on the part of the OT in collaborating with her. This in turn negatively affected Nora's desire to collaborate with the therapist. She said,

> Do I want to call the lady who left a post-it note? Not really, because she's wasted so much time before. Which is a horrible attitude and I'm supposed to be sparkly. Well I want these people to be excited to work with me, and here I'm feeling negative. (Interview 13)

Furthermore, *attitudes* includes how the OT and the teacher cope with negatives such as set-backs or lack of resources. In effective collaboration, both OT and teacher would exhibit a persistence marked by staying positive, persevering, and not focusing on negatives in the face of such set-backs.

Skills

The OT and teacher need to possess a suite of skills to enable effective collaboration. Time management is an important skill because of the limited time that OTs and teachers have to collaborate with each other. Time management incorporates being efficient with time,

prioritizing, scheduling, and managing additional responsibilities such as paper work. Organization skills are important to staying on top of the case and following through on recommendations. This is especially true given the student involved is likely one of many clients on the OT's caseload and one of many students in the teacher's class.

People skills are important to be able to work through differences of opinion and to negotiate when necessary. Being able to respond to an evolving context means that the OT and teacher are flexible and adaptable. This is necessary because schedules can change, the student may be absent from school, a recommended piece of equipment may be unavailable, or the student may not respond to an intervention as planned, for example. Jessica mentioned the need for flexibility when she described how some days are better than others for her son to receive occupational therapy. She explained that it would be more appropriate for the OT to reschedule a visit to see her son if "he's been escalating," than to attempt a therapy session with him that would likely be unsuccessful and give a false impression of his abilities (Interview 12).

Creativity is important for coming up with solutions to challenging cases, designing interventions on a limited budget, and designing curriculum that is accessible to the student. Sarah stressed creativity when she said,

> You really have to be creative, because it's easy for a therapist to get stuck in a rut of always giving the same recommendations, you constantly have to be making it different, making it interesting, because every kid is different, every teacher is different, so you have to be really good with going with the flow on the spot. (Interview 1)

Patience is important to collaboration because of the long wait times associated with SBOT as well as the often slow rate of progress in students receiving SBOT. Similarly, the ability to stay regulated is important to effective collaboration. Challenges such as limited time to collaborate, limited funds for equipment, and lack of progress in the student can frustrate the OT and teacher; however, staying regulated allows both to continue in spite of tensions and to

collaborate on solutions. The ability to work independently is important because, given the classroom demands on the teacher, there will be times when the OT may have to work without the teacher. Likewise, given the visiting nature of the OT in SBOT, the teacher will need to implement recommendations without the OT's presence. Observation skills are necessary to effective collaboration because of their importance to designing and assessing an appropriate intervention for the student. As Lucie noted, "Never assume that no matter how much experience you have, that you know the answer before you've spent a little more time looking at it" (Interview 2). Through observing the student, the OT and teacher can collaborate on determining what the student's needs are and how they can be met. Also, observation skills are needed to determine if the intervention is succeeding. This is important because progress may be slow and without careful observation may not appear to be occurring.

Another important skill is to be able to teach the other professional. This can be on proper equipment use, specific disabilities, demonstrating therapeutic techniques, explaining the role of the OT or teacher, and grading an activity so that with each visit the OT performs less of the intervention for the student and observes the teacher doing more, to ensure that the teacher can perform the tasks in an intervention without the OT present. Clara, for instance, noted "another essential skill for the OT would be teaching skills, because a lot of what you do is teaching others. Not just your client, but again teaching teachers...stuff like safety things, lifting things, exercises, all sorts of stuff" (Interview 9).

Communication skills are important for both the OT and teacher in efficient collaboration. Good communication comprises a subset of skills, including listening skills. Listening skills are needed to ensure that both partners in the collaboration are given the opportunity to share their thoughts and that their thoughts are acknowledged through active

listening. This relates to holding a dialogue, another required communication skill. In a dialogue, there is a back and forth in conversation such that both partners have opportunities to speak and share their insights. As Susan said, "Two way communication, so that's a really important part that there's that back and forth. And that when problematic situations come up, you say, 'Ah, how are WE going to deal with this?'" (Interview 3). Giving feedback is also an important aspect of communication. Positive feedback should be given to acknowledge contributions made by the other professional; however, feedback should also be given when something has not worked, in order to ameliorate the issue. Clara, for instance, described getting feedback from teachers when recommendations didn't work, so that new recommendations could be developed. She said,

> [Teachers] are like "oh we're so glad you're here, here's what happened." And they tell me all these things that had been going on so it was great to get a lot of feedback, so I could really help them problem solve through things. And then really I would say, "Okay this didn't work, why don't we try implementing this?" (Interview 9)

Anna also commented on feedback. She described with appreciation the way OTs would give teachers feedback. Her comments illustrated feedback that was positive and informative in how it was linked to teachers' actions. She said,

> Generally the OT will say... "good effort, glad to see you're doing this," and then maybe "could we work on this for the next time?" or—so I think that's good, giving some positive feedback that things are going well and "let's continue to do whatever." (Interview 5)

Good communication also requires that both professionals are able to communicate through different means. For instance, both professionals can communicate through informal discussions, over the phone, and by email. It also means providing documentation and written reports. Furthermore, good communication needs to be done in a timely manner. This includes making initial contact with each other and keeping each other informed of any changes in

scheduling, changes in the students, and delivering any reports/suggestions in a timely fashion. Sarah described an example of the benefits of good communication when she said,

> One time in particular...the teacher actually emailed me asking some specific questions, so that when I went to see her we knew exactly what it was we were going to talk about. I already ahead of time did the prep to bring her some suggestions. (Interview 1)

Another aspect of communication is establishing a mutual understanding of the case between the OT and teacher. This is important because the different backgrounds of the two professions can lead to one professional using language that is unfamiliar to their counterpart. Thus, establishing a mutual understanding necessitates checking for understanding as well as seeking clarification when unsure of what the other professional means. Seeking clarification means admitting not knowing or not being sure of something. This demonstrates the relevance of trust and fear of judgement to the collaboration since a professional who fears being judged for not knowing something may be less likely to seek clarification.

Knowledge

The knowledge needed to collaborate effectively includes understanding one another, understanding yourself and your practice, and understanding context. Understanding one another refers to knowing what it is that the other professional in the collaboration does and the responsibilities they have. For a therapist, this means understanding that the teacher is responsible for an entire class, not just the individual student the collaboration focuses on. The OT also needs to understand that the teacher is responsible for delivering a curriculum to the student, and goals and recommendations for the student should be academically relevant. Lucie described how OTs need to understand the context of the teacher when she said,

> We need more knowledge about what they're there for. What is it that their job entails? Before we ask them to change anything, we need to understand better...because we're asking them to make changes and the changes we're asking affect more than just our

> client, or the child we're responsible for... We really need to understand their mandate, their goals, and the context in which they operate. (Interview 2)

For the teacher, understanding one another means knowing what occupational therapy is and what OTs can do for students. Clara expressed this sentiment in her interview when she said,

> I think a lot of teachers have come into contact with OTs in other capacities, and they know what they do there, but they're just kind of puzzled as to what they would do in a school, like "oh, my grandmother had an OT," or "in hospital I met an OT, but what would you do here?" So knowing about what the role is in the school. (Interview 9)

Understanding yourself and your practice refers to the OT and teacher understanding their own roles, being self-aware and knowing what their limitations are, having the knowledge that is expected of a member of their respective profession, and having multiple strategies or tricks-of-the-trade that can be used when designing an intervention for the student. Lastly, understanding context requires understanding how the "system" works—how many visits the OT can make, how much funding is available, or how to submit claims for equipment, for example. Understanding context also means seeing the bigger picture, including an understanding of the environment the student engages in and how this can affect any potential intervention. Also, an understanding of context involves an understanding of special needs and an understanding of equity. Both Anna and Marie discussed instances of teachers not understanding the equity issues involved in implementing recommendations that would improve students' abilities to access school curriculum. Anna described the situation with hope, however, when she said,

> So it's been my experience that most of the teachers that I work with, they just get the OT part... Most teachers are on board with that...I think the more the teacher is educated in the importance and the need for the different programming and the involvement of the OT then it's going to be a better fit for everybody. (Interview 5)

Behaviours

Several different behaviours are needed for effective collaboration. These behaviours include reflecting, tactfully influencing, managing responsibility, being genial, respecting

boundaries, being proactive, being professional, and actively including the other professional in the collaboration. Reflecting refers to the professional reflecting on the collaboration, especially after any set-backs. Reflecting is important to identify any aspects of the intervention that could be improved upon as well as any areas of the self that can be improved. Tactfully influencing acknowledges that there will be times when the OT and the teacher hold different views on the particular case they are collaborating on or different views on inclusion or equity in general. Tactfully influencing involves one professional using their attitudes, skills, or knowledge to influence the other professional, rather than being judgemental or divisive.

Another aspect of behaviour required for effective collaboration is managing responsibility. Managing responsibility includes delegating responsibility and taking responsibility. Delegating responsibility is important to help management workloads. For the teacher, this can include making use of educational assistants or early childhood educators. Taking responsibility requires fulfilling obligations, such as writing reports, reading the student's individual education plan, and following through on recommendations. Neglecting responsibility can create frustration on the part of the other professional and others involved in the case and ultimately reduce the efficacy of the intervention. These sentiments were shared by Nicole and Nora. Nicole described her frustration when she found out her daughter's teacher had not read her IEP that contained recommendations developed the previous year by an OT and teacher. Nora described a situation where an OT made recommendations for a high school student based on equipment he was prescribed as a child, rather than discuss with Nora his current needs. She said,

> It was a really crummy experience because I thought we were going to meet, and I was going to show you what our gym class looks like and you were going to help me include this individual and help me understand games I could play or physical movements that

> would help them reach their goals as well as being included in the class. And nothing. Really disappointing. (Interview 13).

Being genial is an important behaviour that aids in developing and maintaining the relationship with the other professional in the collaboration. Being genial entails encouraging each other during the collaboration. As well, it necessitates setting other matters aside to give full attention during the collaboration. If one of the professionals does not understand something, the other professional needs to take the time to explain it in a non-pedantic way. For the teacher, being genial also includes making sure the OT feels welcome in the classroom. Furthermore, being genial means abstaining from behaviours that erode trust, such as "bad mouthing" or ridiculing the other professional in the collaboration. Being genial helps to establish a sense of trust in the relationship between the professionals. Respecting boundaries is also an important behaviour in achieving effective collaboration. For the OT and the teacher respecting boundaries means recognising the other professional's scope of practice is different from their own and that within the collaboration both partners bring valuable insights specific to their scope of practice. For OTs in particular, respecting boundaries also means recognising that they are a guest in the classroom and that the classroom is the teacher's domain. This necessitates that any recommendations that the OT provides should be amenable to the teacher's style of teaching.

Being professional requires being consistent, focused, punctual, and reliable. For the OT, being consistent means taking out the guess work so the teacher knows when to expect to receive communication. Nora described this when she said,

> Being consistent so I know what to expect. So after your visit, if you email me in two weeks, that's great and I can expect that... When thinking consistency, it would be really nice if the OT, this is my dream also, this is not reality, if they call a week before, we meet, we do a follow up a week after. Or something that is laid out so then we know. (Interview 13)

Being focused means that during the collaboration both professionals focus on the intervention at hand. Being punctual means if one of the professionals says they will arrive at an agreed upon location to meet, that they do not keep the other professional waiting. This is important given the limited amount of time both professionals have to collaborate. Reliability entails the professional being available to collaborate on the days they say will be.

Being proactive relates to being professional. If the OT's schedule changes and they cannot meet at a previously agreed time, they need to inform the teacher as soon as possible. Likewise, if the teacher can no longer meet or if the student is absent that day, the teacher needs to inform the OT. Sarah commented on how she appreciated being informed of changes by the teacher when she said, "It's so great when a teacher emails me and says 'So-and-so is away today,' or 'can you come at this time instead of this time?'" (Interview 1). Being proactive also includes the OT providing alternative suggestions when possible, in case the recommended approach to the intervention does not work. This is important so that the teacher has alternate options rather than waiting for the OT's next visit to the school to come up with a new approach. Nora described how it was helpful when a teacher provided her with alternative options in case recommendations did not work. Nora said,

> She gave me like, "if he doesn't want to do this, or if he's uncomfortable, then do this." So there were alternatives. So if I was in a situation, like resources I guess, so she was giving me the resources I guess for the "what if?" (Interview 13)

Similarly, being proactive means following up with the other professional between the OT's visits. This is especially important if the intervention is not producing the desired results.

Including the other professional throughout the collaboration is an important aspect of ensuring co-equal status between the professionals rather than one professional taking on the role of expert. Including the other professional necessitates taking a team-based approach and

viewing the other professional as a member of the same team with valuable contributions to make. Being inclusive also requires being responsive to the other professional's needs. This includes ensuring that the other professional understands the context for the referral, reasons behind recommendations, and how recommended assistive equipment works so that they can fully participate in the collaboration. Andrew, for instance, expressed his desire to be included in the assessment of the student so that he could better understand the basis for recommendations based on assessments. He said,

> Right now, what's happening is the OT will come in and do an assessment, and they do the assessment pretty much by themselves. They don't include us in that. And then they present us with a plan and they go away. So for me if we're going to do a collaboration, I'd like to be involved in the assessment part, so I can see the kinds of things that they do so I can get a better understanding of what it is. (Interview 8)

Beliefs

The beliefs of the OT and teacher play an important part in determining the effectiveness of the collaboration. Beliefs that are needed include believing that change can happen, and believing that other professionals want to succeed, too. In addition, confronting assumptions is also important to beliefs. Believing that change can happen entails the OT and teacher having confidence in themselves and each other, as well as the student. Andrew expressed the importance of believing change can happen when he said,

> You have to have a positive attitude that this is going to make a difference. It's not just one more thing to take up your day. This is something we need to do, or this kid probably will have more difficulty or won't be able to do whatever it is that we're working on. (Interview 8)

Expressing confidence in the other professional can help build rapport and strengthen the relationship between the OT and teacher. Believing the other professional also wants to succeed helps each professional to stay positive about the relationship. As Andrew explained,

> I mean we have to expect the best from everybody that we're working with. That's why they're there. They're not there, like I said, to screw up my third period math class, they're there because we're all trying to do the same thing. (Interview 8)

Confronting assumptions requires the OT and teacher to interrogate their own beliefs. This includes beliefs about the other professional or the client that may lead to negative judgements. This point was illustrated by Nicole, who described how OTs may have assumptions about what teachers know about disabilities. She said,

> Because as an OT going in you assume that the teachers know but it seems like they don't. But why would you expect them to, too? They're being trained to teach, right? The disability is the outlier for most kids. (Interview 7)

Personality

Having humour and being comfortable around others are aspects of OT's and teacher's personalities that can have a positive effect on their collaboration. Having humour is helpful for building a relationship between one another and can also help to overcome setbacks and tensions in the collaboration. Being comfortable around others helps the OT or the teacher ask questions of the other professional. Monica pointed out the importance of extroversion when she said,

> If you have a shy, reserved personality, you may have more difficulty getting what you need from a busy teacher who wants you to cut the crap and ask what you want to know, so they can get back to teaching things. (Interview 4)

Monica went on to explain the necessity of an outgoing personality to OTs when she said,

> A lot of it comes down to personality. So if you're not really comfortable with kind of just—you can't go into OT if you're not cool with talking to people all the time and trying to engage them and pull information out of them that they may not want to share or feel that they're able to share. (Interview 4)

Monica further elaborated on the importance of feeling comfortable around others to on-the-job learning since feeling comfortable around other people allows new professionals to engage more experienced professionals in instructive conversations.

Rooted in Realistic Practicalities

Rooted in realistic practicalities involves an awareness of the context of collaboration and acting appropriately to that context. This includes making appropriate goals and recommendations, having realistic expectations, accepting set-backs will happen, acknowledging that success matters, acknowledging different professional backgrounds, and the professional admitting if they do not know all the pertinent information. Goals and recommendations for the student need to be educationally relevant. Similarly, both professionals need to have realistic expectations. This includes realistic expectations of what each other is capable of and accepting that goal achievement for the student may be slow. Clara described how sometimes teachers will have unrealistic expectations of what OTs can accomplish. She said of teachers, "They need to adjust their mindset of what is actually possible. Like being positive, but also being realistic, too, that the OT is a human being as well, and doesn't have a magic wand" (Interview 9). As well, both professionals need to accept set-backs. This can be set-backs in the student's progress, but also set-backs such as the student not being available on the day of a scheduled OT visit. As Lucie pointed out, "So you have to be comfortable with the fact that things aren't always going to work" (Interview 2).

It is also important that both professionals acknowledge that success matters. Meeting goals may be a precondition for continued SBOT service delivery and so being able to foster conditions conducive to success are important for the student. In addition, one participant pointed out that sometimes teachers are judged by the success of their students, which can lead to the teacher bringing added stress to the collaboration.

Acknowledging different professional backgrounds is important because the OT and the teacher have different frames of reference and may not understand that of their counterpart.

Using language that the other professional may not understand may lead to breakdowns in communication. Likewise, assuming that the other professional understands the language of their counterpart may lead to misunderstandings. Nicole, for instance, pointed out that, to an OT, low muscle tone in a student would present a wide range of educational difficulties, including large printing and rapid fatigue. However, some teachers might think low tone would only affect a student in physical education if they were not made aware of what low tone entails. Admitting not knowing all the pertinent information is important to ensure that gaps in understanding are identified and addressed. Additionally, Lucie also pointed out that if a teacher does not understand the OT's recommendations or why something is being recommended then ultimately precious time is wasted.

Willingness to Improve

A willingness on the part of the professional to improve requires a willingness to change behaviours or thought patterns, for example, and also a willingness to learn new information, new ways of thinking, or new ways of doing things. Monica commented that age can make change a difficult task, particularly for older teachers who are "set in their ways," (Interview 4). Lucie pointed out that sometimes OTs need to be willing to change the recommendations they make so that they conform to the teacher's style of classroom management. She said,

> Some teachers like a lot of order and a lot of structure and other teachers are more loose in their approach. And I think being able to adapt our recommendations for different children to their approach is a skill worth developing because we might be suggesting structure for a child because we know they need it, but that's not the teacher's style. (Interview 2)

A willingness to learn on the part of the professional can similarly benefit students. For example, Susan commented on how she had learned from teachers. She said,

> Discussing things with teachers, too. Not knowing all the answers and just saying, "Hmm, what do you guys use for keyboarding? Because keyboarding might be

> something that he could work on." And that's always helping my knowledge base, but it's also getting the student what they need. (Interview 3)

Facilitating Actors

A great deal of the success in a collaboration between an OT and a teacher depends on the other people around them, including the resource teacher, paraprofessionals, parents, and administration. Each of these actors can bring additional knowledge or resources to bear. In addition to the job that they carry out, any one of these people may take on the added role of a key facilitator. Having a key facilitator was seen as beneficial for coordinating between the OT and the teacher. Birgit commented on her role as a key facilitator for coordination of the several professionals who work with her son. Likewise, Marie's description of her role as a resource teacher indicated acting as a key facilitator. As Marie explained, in her capacity as a resource teacher she often relays information between the OT and the classroom teacher when they do not have time to meet and discuss the student. She also passes information from the OT to all the other school personnel who may be involved with the student. However, although resource teachers can be key facilitators, they should not be seen as a replacement for the classroom teacher. Clara touched on this when she described not getting to speak to the classroom teacher,

> I've had a lot--well a few situations, where I just don't get access to the teacher, I just don't get to talk to them, it's like it's all through the resource teacher, and I mean they're great and everything like that and they talk to the teacher, but sometimes it's really good to just, "Hi, how you doing? I'm the OT and these are my notes and it's nice to meet you and how are things going?" you know, things like that. So when I don't get any access to the teacher or get to really talk to them, yeah, doesn't really work. (Interview 9)

Paraprofessionals, such as educational assistants, are often the individuals who carry out recommendations made by the OT. In some instances, they are assigned to work with the student and can offer invaluable insight on the student to the teacher and OT. Parents (or guardians) are the primary caregivers for the student outside of school. As such, they are often

called upon to carry out recommendations from the OT and teacher in the home. Whether recommendations are followed through or not in the student's home can affect whether goals are reached and how quickly they are reached. The school and school board administration play a vital role in accommodating collaboration between OTs and teachers by providing time for the teacher to meet with the OT while a substitute teacher is in the classroom. As Susan noted,

> And the teachers, if they want it, request time to be in on our sessions and they get a substitute. So the board actually supports that, and when that happens, it's amazing, because you have the luxury of being able to actually tease out what it is that's important to the teacher, how they run their classroom, what their environment is, what that environment is for that student. (Interview 3)

Anna also commented on the positive effect of having a school principal who was supportive of inclusion. She noted applying for special equipment recommended by OTs has been made easy by a principal who is knowledgeable and supportive of inclusive education.

Facilitating Factors

Facilitating factors are those things that play a role in supporting or improving the collaboration between the OT and the teacher, such as the role of experience, having meetings in person, having resources to work with, having access to professional development, having access to the other professional, and characteristics of the school.

Participants described the role of experience as useful in their collaborations. OTs noted that teachers who had previous experience of a child with special needs in their class gave those teachers a better understanding of what sort of expectations are realistic. Similarly, Kate commented that having worked with students with special needs made her more familiar with the equipment that OTs prescribe. OTs also noted that, if the teacher had previous experience collaborating with an OT, they were more likely to appreciate what collaborating with an OT can accomplish. Experience in SBOT also helped prepare OTs for future collaborations. As Sarah

said, “Time in the field has been a big one, just learning what works, and what doesn’t” (Interview 1).

Having meetings in person was mentioned by several participants as facilitating collaboration. Indeed, several participants mentioned having meetings in person as an aspect of ideal collaboration. Meeting in person was seen as a way to discuss things without distractions and allows for a back-and-forth sharing of ideas between the OT and teacher. Having resources to work with, such as time, a work space near to the teacher, and knowledgeable co-workers, aided in collaborations. Having enough time to meet and discuss with each other was frequently mentioned and described as paramount for collaboration. A space where the OT could work that was close to the teacher allowed the teacher to see what the OT was doing with the student if the OT carried out assessments. It also promoted dialogue between the OT and the teacher.

Co-workers were seen as a source of knowledge and resources. Clara, for instance, recalled how shadowing more experienced therapists helped her when she began in SBOT, while Marie explained that teachers with less experience collaborating with OTs will often approach her to learn more about SBOT. Similarly, professional development opportunities were seen as important to expanding the knowledge base of both OTs and teachers.

Having access to the other professional refers to the capacity of the OT or the teacher to be in contact with their counterpart, whether through in-person meetings or alternate forms of communication. It also includes the predictability and regularity of visits to the school by the OT and the ability of the teacher to meet with the OT when the OT visits. Nora, for instance, described this as “knowing what to expect” (Interview 13) so that information would flow dependably between her and the OT. Characteristics of the school, such as its atmosphere and commitment to inclusion, also facilitate collaboration. As Lucie noted, “When you have a

school that's already a nice community, you know, that's tight already, already has a caring attitude toward inclusion and making it work, obviously that makes life easy" (Interview 2). Sarah commented how therapy is more successful in schools that make it a priority. She said,

> I find it tends to group by school, so I have some of what I call my "black hole schools" where nothing ever really gets done. And other schools that write down when I'm coming, they set it aside so that the teacher can be pulled from class and chat with me, those are the schools where you see the most success with the kids because therapy is a priority. (Interview 1)

Transformative Outcome

Transformative outcome refers to the positive change that can result from effective collaboration. Transformation includes recommendations that benefit the whole class, progression towards greater collaboration, and creating change. Collaborations typically focus on one student, but the recommendations that result may benefit many of the students in the classroom. Andrew noted this when he said,

> Just like willing to take the information from another professional and apply it to your own practice and apply it in your daily work with the students and a lot of the stuff that one of the OTs that I worked with this year recommended to us this year was applicable to us, was applicable across the board in my class. (Interview 8)

A progression towards greater collaboration acknowledges that collaboration between OTs and teachers occurs on a spectrum. At one end of the spectrum is minimal interaction between the two professionals. Transformation occurs at the other end of the spectrum, where boundaries between the professionals begin to fade and both professionals make and receive recommendations that are traditionally the domain of their counterpart. Anna, for instance, said,

> So you know if the principal, or myself, or a teacher has said you know, "I think this child could really use X," this piece of equipment or whatever, the OT, they're right onboard, "you know what, let's put that in the recommendation." (Interview 5)

Creating change refers to the act of creating change and the benefits that can occur as a result. For instance, Monica described creating opportunities for herself to interact more with teachers

by using the photocopier in the staff room during the teachers' breaks. By creating these opportunities, the collaboration benefitted from a greater exchange of information. She said,

> So I go in there and then there's three teachers that I need to talk to that are there at the photocopier, there's my opportunity to ask them questions, or say "Hey, this went really well today, I'm going to give you some resources to try in the classroom, and I'm gonna send this home for the kid." And that often will prompt "You know, I'm also noticing this, and I'm also noticing that," so it's just taking those, and being aware of those little opportunities, and planting yourself in a situation where maybe you can create that opportunity as well. (Interview 4)

Tensions

Tensions in collaboration between OTs and teachers were also identified through interviews and yielded three superthemes: (a) environment-level tensions, (b) person-level tensions, and (c) professional socialization. In addition to the tensions listed below, the inverse of the themes previously described are also tensions. For example, an OT or teacher making inappropriate goals or recommendations, or an OT or teacher unwilling to change would also be tensions in a collaboration.

Environment-level tensions. Environment level tensions are those tensions that are embedded within the context that the collaboration occurs. These tensions are often at the systems level and frequently beyond the control of the individual OT or teacher. A lack of funding, for example, limits the potential of collaboration by limiting the number of visits the OT can make to the school, whether a substitute teacher can cover the classroom teacher while he/she meets with the OT, and the equipment that the school can purchase for the student. Bureaucracy can be unwieldy and unresponsive to the needs of OT and teacher. Kate, for instance, described a situation where there was a breakdown in communication somewhere between a student being referred for SBOT and the services being provided. The teachers

working with the student didn't know when or how many OT visits the student would receive. Kate expressed her frustration with this when she said,

> Because with the school, the school board doesn't have these--they contract this work out, right? So these providers come in, but CCAC's involved, too. So I just feel like there was a gap in the chain of command somewhere. And I don't think that the information got to the frontline people that were actually working with the kid and that kid herself. (Interview 10)

OT/teacher turnover refers to either professional leaving their position for any reason. The departure of a professional means the start of a new collaboration. The new professional may not be familiar with the student, the school, or have as much experience in SBOT. Susan noted how turnover can affect a collaboration when she said,

> If you're on a roll with somebody and then it changes, that, you know, starting a relationship with a new person, and getting that collaboration going again, it's not really a problem, but it does, it can slow things down a little bit. (Interview 3)

Lucie also noted how progress can be slowed down by turnover when she said, "They don't have the same therapists in the same school two years in a row. There's a lot of change all the time. So the teachers are rolling their eyes going, 'been there, done that, I've heard all this before'" (Interview 2).

Tensions that result from the parent(s) withholding consent to pass information about the student from the OT to the teacher were captured in this supertheme. Parental consent for sharing information was raised by Susan, who said,

> As an OT in school health when I would go in I would have a lot of access to the medical and psychological background, family background on a student, and a teacher would have maybe not so much, maybe reports weren't shared with the school. So when you're looking at true collaboration, you would hope all the cards are on the table, but sometimes different adults involved with children don't have the same information. And sometimes that's the parent's choice and decision. It's a deliberate decision. And so that can make the collaboration really tricky, too. (Interview 3)

Nature of occupational therapy service delivery related to how occupational therapy services are delivered in the school system. Specific tensions included the inadequate number of OT visits, the long wait time between referral and OT service, and the visiting nature of the OT limiting access the OT and teacher have to each other. Sarah mentioned how the number of visits was a tension when she said, "We're only given so many visits for per child, so it's difficult to really do a ton of follow-up when you only get so many" (Interview 1). Anna described wait times between referral and service as a tension. She said,

> The issue might be the length of time, from when I put the paper in to when we get service. And it could be six months to a year I think. So that would be, that's definitely been a drawback. (Interview 5)

The nature of the school setting also presented tensions in collaboration. Tensions in this theme included the teacher having responsibility for the whole class, a lack of funds on the part of the school system to utilize occupational therapy to its full potential, and difficulty for therapists to gain access to the student when hired by a parent. For example, Jessica pointed out how teachers are often so busy looking after all the students in the class, they do not have time to collaborate with the OT. Specifically, she said,

> She has 24 kids, and she has four or five kids that are probably identified. She does have a support person and there is [a resource teacher] and the school has done a good job, they have, but I can see in certain situations where the teacher just doesn't have time. Like there's an OT at the door, "go do what you've got to do, I've got to deal with this." (Interview 12)

Nicole described the difficulty experienced by the private OT she hired to gain access to her daughter while in school. She said,

> I asked if my private OT could come in and work with the teacher... So we had a meeting, I asked for a meeting between the resource teacher, the homeroom teacher and myself, and the OT and I was told "No." So I really had to push with the principal to get this private OT in. (Interview 7)

Person-level tensions. Person-level tensions are those tensions that arise from aspects that are inherent to either or both of the OT and teacher. Person-level tensions consist of the themes psycho-emotional tensions and different views on inclusion. Psycho-emotional tensions are negative feelings experienced by the OT and teacher. For example, the OT may not feel to be part of the school, or continued set-backs may cause either or both the OT and teacher to lose faith in the collaboration. Additionally, high workloads may cause either of the professionals to experience burn out. Susan touched on the exasperation felt by some teachers when she said,

> I mean, I think teachers have a tough job, because they have demanding groups of students and in mainstream situations they often have close to 30 kids, and they have 8 or 10 with IEPs. So it's challenging to deliver a curriculum. So I think, sometimes the negativity I see coming through is just teacher fatigue and maybe frustration, like, "how can I effectively teach all these children?" (Interview 3)

Different views on inclusion focused on OTs and teachers not sharing the same views on inclusion of students with special needs, such as conflicting philosophies about special education, or the teacher not showing interest in accommodating special needs. Anna commented how some teachers show little interest in making changes in their teaching that would benefit students with special needs. She said, "You know, unfortunately, I think some teachers, 'this is my program, this is what I'm doing, too bad, so sad.'" Lucie pointed out how a teacher's negative attitudes toward students with special needs in their classroom can affect the recommendations OTs make. She said,

> If the teacher has a negative attitude toward disability and inclusion, that needs to be addressed... That could really affect what we're asking them to do, because that affects the tone of the whole classroom, because the teacher, years ago, there were studies that indicated, when we first started to do inclusion, that the teacher's attitude toward inclusion directly, significantly affected how a whole classroom reacted, that goes back to that. (Interview 2)

Professional Socialization. Professional socialization results from the adoption of the professional culture or knowledge of OTs' and teachers' respective fields. This supertheme contained one theme, different opinions on what collaboration should look like.

The theme, different opinions on what collaboration should look like, comprises tensions that reflect confusion or disagreement over what the collaboration between the OT and the teacher should look like. Tensions in this theme included the teacher preferring a model of therapy different from what the therapist offered and teachers confused by the process of the collaborative consultation model of therapy. For instance, if an OT prefers to remove a student from the classroom for direct therapy, whereas the teacher would prefer the student to remain in the class and discuss a plan for the student with the therapist. Andrew, for instance, described being disappointed that OTs remove students from his class. He said,

> Right now what's happening is the OT will come in and do an assessment, and they do the assessment pretty much by themselves. They don't include us in that. And then they present us with a plan and they go away. So for me if we're going to do a collaboration, I'd like to be involved in the assessment part, so I can see the kinds of things that they do so I can get a better understanding of what it is. (Interview 8)

Clara noted how some of the confusion over how SBOT was delivered was based on teachers' unfamiliarity with the collaborative consultative process. She said,

> It's getting better, but they're used to the old school model where it's direct therapy, and physios, too, come in, "here's your client, see ya later," come back and you're supposed to have fixed them or whatever, within your 45 minute visit, so yeah. (Interview 9)

Susan pointed out that these differences of expectations and preferences may be artefacts of older models of SBOT service delivery that placed less emphasis on the OT and the teacher working together, and that older OTs and teachers may not fully understand newer models of SBOT that place greater emphasis on the OT and teacher interacting with each other.

Discussion

Although there has been a steady increase in demand for SBOT services, there has been a paucity of literature elucidating a conceptual understanding of intersectoral collaboration between OTs and teachers. The results of this study indicate that collaboration between OTs and teachers is built on a relationship between the two collaborating professionals as well as several other factors. These factors dynamically interact to bring about transformation that can benefit more than just the student who is the focus of the collaboration. However, the results also indicate that the absence of these positive factors would function as tensions in the collaboration, along with other environment-level tensions, person-level tensions, and tensions caused by professional socialization.

The findings from this study share similarities with other literature on collaboration in general and between OTs and teachers specifically. For instance, the findings from this study depict collaboration occurring along a continuum, as depicted in Figure 4.1. This is similar to Thomas (as cited in Coben et al., 1997), who also viewed collaboration as existing on a continuum, with collaboration at one end of the continuum and conflict at the opposite end. This is comparable to the ineffective collaboration and effective collaboration depicted in Figure 4.1.

D'Amour (as cited in D'Amour et al., 2005) produced a model of collaboration with four dimensions, two of which, finalization and interiorization, were echoed in this study. Finalization, according to D'Amour et al., refers to the existence of common goals and vision, while recognizing the differing allegiances of the team members. This is similar to the supertheme *rooted in realistic practicalities*, which recognizes the importance of making appropriate goals and acknowledging the different professional backgrounds of the OT and teacher. Interiorization refers to the awareness by professionals of their interdependency and

translates into a sense of belonging. This is similar to aspects of the superthemes *relationships* and *behaviours*, which include creating and maintaining a relationship with the other professional and including the other professional throughout the collaboration. Furthermore, D'Amour et al. (2005) noted that the importance of authentic relationships, marked by trust, respect, valuing the other professional, co-equal status, and sharing responsibility, between collaborators. This is in line with the supertheme relationships from this study, which affirmed each of these as important to collaboration between OTs and teachers.

Bryson, Crosby, and Stone (2006) proposed that intersectoral collaborations are more likely to succeed when they have committed sponsors and effective champions at many levels, formal planning, and trust between collaborators, and are not threatened by power imbalances between collaborators. These points are borne by the findings of this study, which found support from principals and school boards to be important, trust as a key determining factor in building a relationship between professionals, in-person meetings between the OT and teacher crucial to the back-and-forth sharing of ideas, and co-equal status to be necessary to effective collaboration.

Silverman and Millspaugh (2006) described an OT and resource teacher sharing a space as beneficial because it fostered greater communication between the OT and the resource teacher. This benefit was similarly found in this study. However, this study also found that though resource teachers are important facilitating actors, and may even be key facilitators, they are not a replacement for the classroom teacher. This finding underscores the tension that occurs when there is a lack of access to the classroom teacher and that access to a resource teacher should not be considered a replacement for access to the classroom teacher.

Implications

Successful collaboration between OTs and teachers is built on several enabling factors, while, conversely, the absence of these factors acts as tensions in collaboration. Addressing these factors to ensure their presence in collaboration should be addressed. One method to achieve this aim is to embed OTs within the school system. Embedding OTs within schools has been piloted in both Canada and the UK and found to successfully cultivate strong relationships between OTs and teachers (Campbell, Missiuna, Rivard, & Pollock, 2012; Hutton, 2008). Embedding OTs in schools allows for a greater consistency in occupational therapy services and provides more time the OT and teacher to build a relationship (Campbell et al., 2012).

This study found an important enabling factor in collaboration to be the professional possessing the knowledge required to collaborate. The role of experience was particularly important in helping the participants learn how to collaborate. Similar findings were reported by Blackwell and Dunn (2016) and Brandenburger-Shasby (2005). Blackwell and Dunn noted that a lack of collaboration skills was more common among OTs with less experience collaborating with teachers compared to OTs with more collaborating experience. Brandenburger-Shasby found that, as OTs gained experience in SBOT, their need for continuing education in SBOT decreased.

One possible means of accelerating OTs and teachers' knowledge acquisition about each other, SBOT, and the health and education systems that their counterparts work within would be to offer both professions opportunities for interprofessional education (IPE). IPE is a system of education predicated on professionals learning with and from each other to improve collaboration (Barr, 2002). IPE for OTs and teachers has been promoted within the literature on SBOT (e.g., Patton et al., 2015; Wehrmann, Chiu, Reid, & Sinclair, 2006). IPE may serve to

increase the knowledge professionals have about each other, and promote positive attitudes toward collaboration and the skills needed for collaboration (Carpenter, 1995; Hammick, Freeth, Koppel, Reeves, & Barr, 2007).

Such IPE can be accomplished at the pre-service or in-service level and may appeal to professionals "enlightened self-interest" (Lawson & Sailor, 2000, p. 11), because of the opportunity to improve their own practice. Pursuing IPE specifically at the pre-service level would have the added benefit of better equipping OTs and teachers to collaborate with each other upon entering the workforce. Pre-service IPE would also help put new and experienced collaborators on a more equal footing and thereby reduce potential tension related to status (Bryson et al., 2006).

Future Directions for Research

This study elucidated a number of enabling factors for collaboration between OTs and teachers. Several of these factors, including knowledge and skills, can be considered competencies needed for OTs and teachers to collaborate. Pursuant to calls for IPE for OTs and teachers, a competency framework for collaboration between these professions should be developed as competency-based education has increasingly become the norm in health professions (Institute of Medicine, 2003; Royal College of Physicians and Surgeons of Canada, 2014). Developing a competency framework would require identifying the information elucidated in this study that can be considered competencies and applying competency modelling techniques to organize it into a usable framework. Such a competency framework can be used to guide curriculum development for IPE learning events and to provide pre-service learners with a reference to the attributes necessary for in-service collaboration with each other.

Limitations & Trustworthiness

Important limitations to this study should be noted. The researcher was a colleague of some of the participants, which may have influenced their responses during interviews. Additionally, each participant was interviewed only once, which may have limited interview depth and the ability to clarify responses. As well, because only three parent participants were interviewed, the richness of data from this particular source may be limited. It should also be noted that all OT and teacher participants practiced in Ontario, though not all received their professional training in Ontario. Furthermore, different jurisdictions employ different SBOT service delivery models. Thus the findings of this study may not be generalizable to all cases of collaboration between OTs and teachers.

Steps were taken, however, to promote the trustworthiness of the findings. For instance, all participants were sent a transcript of their interviews, should they like to make any additions or deletions to their responses. Teachers were recruited from multiple school boards and represented both classroom teachers and resource teachers. OTs who were recruited collaborated with teachers from multiple school boards and represented OTs working in both public and private agencies. As well, the research supervisor independently analysed transcripts representing an OT, teacher, and parent, to confirm credibility of the interpretation of the data. Lastly, the findings of this study are reinforced by the similarities shared with findings of various other studies on collaboration. Together, these steps provide a measure of trustworthiness in the findings.

Conclusion

The literature on collaboration between OTs and teachers states that collaboration between these two professions can augment educational outcomes (Barnes & Turner, 2001;

Wehrmann et al., 2006; Whalen, 2002). However, effective collaboration requires more than the mere presence of an OT and teacher in the same room—it is a dynamic and interactive process that is built upon a number of enabling factors. Many of these enabling factors are absent in collaboration between OTs and teachers, evidenced by the mismatch between participants' descriptions of ideal collaboration compared to their realities. Often, participants described not having enough time or administrative support for collaboration. Thomas (1992) argues that professionals are part of organizational cultures and are at some level complicit in the arrangements of those cultures. The accommodation to managerial realities could be interpreted as resignation, since the existing arrangements meet professionals' needs to avoid the stress, whereas a change to more collaboration may entail more stress (Kennedy & Stewart, 2012; Thomas, 1992). As professions deeply committed to the success of students, OTs and teachers should advocate for systemic changes at the in-service and pre-service levels that address access to the factors that enable collaboration between them.

Chapter 4

Toward a Conceptual Framework for OT-Teacher Collaborations

Students with special needs have increasingly been included in mainstream classes alongside their typically developing peers, as part of a commitment to inclusive education within the least exclusionary environment (Hutchinson, 2014). However, some of these students experience needs that are beyond the expertise of their classroom teacher. Teachers will often collaborate with occupational therapists (OTs) to help these students access curricula and other education-related experiences. Collaborations between OTs and teachers in school-based occupational therapy (SBOT) are intended to develop remedial and compensatory strategies that can improve students' skills to better meet expectations, remove physical and attitudinal barriers, recommend adaptations to activities or the use of assistive technologies, or build the capacity of other members of the educational team to work with students with special needs (Villeneuve & Hutchinson, 2012).

There has been a longstanding tradition among health care professions, including occupational therapy, of collaborating with each other for the benefit of patients. Termed interprofessional collaboration, this phenomenon has been widely researched. However, less literature is available on intersectoral collaboration (ISC)—collaboration that occurs across sectors. For instance, a January, 2017 Google Scholar search for "interprofessional collaboration" yielded approximately 16 000 results, while "intersectoral collaboration" yielded approximately 7 170 results. Based on a scoping review of the literature, Chircop, Bassett, and Taylor (2014) found ISC to be frequently described as a "deliberative, recognized, purposeful relationship constituted of government, non-government, not for profit, business, academia, communities, policy-makers, managers, clinicians and multi-organizational stakeholders at the

local, national and global scale, along and across horizontal and vertical axes" (p. 5). According to Chircop et al., many authors on ISC subscribe to the definition outlined by the WHO for what it terms Intersectoral Action for Health:

> A recognized relationship between part or parts of the health sector with parts of another sector which has been formed to take action on an issue to achieve health outcomes (or intermediate health outcomes) in a way that is more effective, efficient or sustainable than could be achieved by the health sector acting alone. (WHO, 1997, p. 3)

For the health sector, the driving force to collaborate with other sectors outside of clinical environments is the recognition that the key drivers of health are socially determined (Tooher et al., 2017). This impetus toward collaboration has led to attempts to embed health related programs into school functioning (Tooher et al., 2017). Such programs have focused on mental health, nutrition, physical activity, drug, alcohol, and smoking safety, and sex education and prevention of infectious diseases (Tooher et al., 2017).

However, these examples, along with the WHO definition, are problematic for describing the collaboration that occurs between OTs and teachers in SBOT because of their singular focus on health outcomes. Whereas ISC as envisioned by the WHO and others remains focused on *health*, the priorities of the OT in SBOT are to enhance the *education* of the student (Brandenburger-Shasby, 2005; Case-Smith & Cable, 1996). Despite the OT and teacher both working toward educationally relevant goals for the student, tensions still arise due to the differing backgrounds of the two professionals. According to Case-Smith and Cable (1996), the health care background of OTs is both an asset and an obstacle to the ability to collaborate with teachers. OTs' knowledge of biomechanical, biopsychosocial, cognitive behavioural, and other theories enable them to understand the student's behaviours and needs from a perspective different, yet complementary, to that of teachers (Case-Smith & Cable, 1996). However, because of their different frames of reference (i.e., engagement of different theories at the

practice level), tensions in collaboration can arise in areas such as communication and goals and recommendations (Case-Smith & Cable, 1996; Patton, Hutton, & MacCobb, 2015).

Tensions arising from different frames of reference, along with other tensions reported in the literature on collaboration between OTs and teachers (e.g., Bose & Hinojosa, 2008; Nochajski, 2001; Villeneuve & Shulha, 2012), underscore the necessity for a conceptual framework of this particular phenomenon. Unfortunately, despite the decades long history of OTs collaborating with teachers, there is considerably little development in the way of conceptual frameworks that seek to elucidate collaboration between these two professions. Notably, Bose and Hinojosa (2008) and Blackwell and Dunn (2016) conducted studies that resulted in frameworks describing collaboration between OTs and teachers. Bose and Hinojosa conducted a grounded theory on the perspectives of OTs working in early childhood classrooms. Their study was conducted with only OTs as participants. Blackwell and Dunn conducted a qualitative deductive study with three teachers as participants and one OT as a research team member/participant (among other research team members). It should be noted that Blackwell and Dunn did not clearly articulate what, if any, distinction was made between data from teacher-participants and data from research team members, resulting in potentially biased findings. Furthermore, the teachers all co-taught the same class of students.

The purpose of this study is to add to the understanding of collaboration between OTs and teachers by developing a robust conceptual framework that draws more broadly from the experiences of both OTs and teachers, as well as relevant literature, than previous frameworks.

This study was guided by the following questions: (a) what are the tensions experienced by OTs and teachers in SBOT collaborations? (b) what are the facilitating factors that aid OTs and teachers in SBOT collaborations? and (c) what are the core phenomena collaboration

between OTs and teachers are contingent upon? These questions were answered by integrating and analysing the results from a previous scoping review of tensions in collaboration between OTs and teachers (see Chapter 2, Manuscript 1) and an interview-based study of tensions and facilitating factors in collaborations between these two professions (see Chapter 3, Manuscript 2).

Methods

This study employed a methodological triangulated design (Morse, 2003), composed of a scoping review and qualitative interview study. Qualitative method triangulation is increasingly advocated as a strategy to achieve a more comprehensive understanding of the phenomenon of interest (Lambert & Loiselle, 2008). One-on-one interviews were conducted to gain in-depth responses that could be further probed and elaborated upon with participants. Although the scoping review did not allow for the same probing and resulting richness of data, it greatly expanded the number of voices and the jurisdictions represented in the data.

Scoping Review

A scoping review of the literature was conducted using the methodological framework described by Arskey and O'Malley (2005). Articles were sought that noted tensions in collaborations between OTs and teachers. Four databases and four journals were searched, they were: (a) Education Source, (b) ERIC, (c) CBCA Education, (d) CINAHL, (e) American Journal of Occupational Therapy, (f) Australian Occupational Therapy Journal, (g) British Journal of Occupational Therapy, and (h) Canadian Journal of Occupational Therapy. Articles had to be published between 1990 and September, 2016 and be published in English. Search terms included teacher*, occupational therap*, and school based. A total of 30 articles were charted for data. Forty-six unique tensions emerged from the scoping review. Using an inductive

analysis approach (Patton, 2002), 12 themes were developed and organized into three categories of tensions (Table 4.1).

Table 4.1

Categories and Themes of Tensions from Scoping Review

Professional Socialization	Person-Level Tensions	Environment-Level Tensions
Understanding One Another, Goals and Recommendations, What Collaboration Should Look Like	Ability to Build Relationships, Lack of Investment, Poor Communication, Proficiency of Skills, Views on Inclusion	Not Enough Time, Nature of School Setting, Nature of OT Service Delivery, The Parent

Interviews

One-on-one interviews were conducted with 13 participants: 5 OTs, 5 teachers, and 3 parents of children who have received SBOT. Therapists represented both private and public employers, while teachers represented both classroom teachers and learning resource teachers. The range of roles, employment type, and experience levels produced a sample that broadly represented the population of interest. An interview guide was used to ensure consistency in questions between participants; however, follow-up questions were also used to elicit more detail from participants (Patton, 2002). Specific emphasis was placed on behavioural event questions that focused on both positive and negative experiences of participants when collaborating. This engaged participants in sharing their perspectives on actual lived experiences. Data from the interviews were analysed using qualitative content analysis (Elo & Kyngas, 2008). This process yielded a total of 339 codes. All codes were compiled for a second cycle of coding, which resulted in the identification of overarching superthemes. Codes were then separated into their

respective superthemes and the process was repeated to yield themes. Using an abductive approach, this process was reiterated, with codes moved between themes and superthemes, and new themes and superthemes created or collapsed into each other until a best-fit was derived from the data. The second cycle of coding resulted in 15 superthemes (Tables 4.2 & 4.3).

Table 4.2

Superthemes and Contributory Themes of Enabling Factors and Transformative Outcomes

Supertheme	Definition	Themes
Relationships	The connection between the OT and the teacher.	Having a trusting relationship, sharing co-equal status, creating a relationship, maintaining a relationship, seeing eye-to-eye, sharing insights and resources
Attitudes	The disposition or feeling toward something held by the OT or teacher.	Open to collaboration, motivated to collaborate, persistent

Skills	The OT or teacher's ability to do something.	Time management skills, ability to teach the teacher, organization skills, people skills, ability to respond to evolving context, creativity, patience, ability to stay regulated, ability to work independently, observation skills, communication skills
Knowledge	The knowledge and understandings possessed by the OT or teacher.	Understanding one another, understanding yourself & your practice, understanding context
Behaviours	Actions taken on the part of the OT or teacher.	Reflecting, tactfully influencing, managing responsibility, being genial, respecting boundaries, being proactive, being professional, including other
Beliefs	The ideas and concepts that the OT or teacher holds to be true.	Believing change can happen, believing others want to succeed too, confronting assumptions
Personality	The qualities and characteristics of the OT or teacher.	Having humour, being comfortable around others

Rooted in realistic practicalities	The OT or teacher is conscious of contextual factors and acts appropriately to the context.	Making appropriate goals and recommendations, accepting set-backs will happen, having realistic expectations, success matters, acknowledging different professional backgrounds, admitting not knowing
Willingness to improve	The OT or teacher is willing to try to ameliorate their shortcomings.	Willingness to change, willingness to learn
Facilitating actors	Those people beyond the OT and teacher who may also collaborate with the OT and teacher.	Resource teacher, paraprofessionals, parents, administration, key facilitator
Facilitating factors	Those factors that play a role in supporting or improving the collaboration between the OT and teacher.	Role of experience, meetings in person, resources to work with, professional development, access to one another, school characteristics
Transformative Outcomes	The positive change that can come about from effective collaboration.	Benefitting one benefitting all, moving towards greater collaboration, creating change

Table 4.3

Superthemes and Contributory Themes of Tensions

Supertheme	Definition	Themes
Environment-level tensions	Factors external to the OT or teacher that negatively affect collaboration.	Lack of funding, lack of time/access, bureaucracy, OT/teacher turnover, the parent, nature of OT service delivery, nature of school setting
Person-level tensions	Aspects of the OT or teacher that negatively affect collaboration.	Psycho-emotional tensions, different views on inclusion
Professional socialization	Adoption of the professional culture, knowledge, etc. of OTs' and teachers' respective fields.	Different opinions on what collaboration should look like

Note. Although not shown in Table 4.3, the inverses of facilitating themes also act as tensions. For example, a lack of knowledge, negative attitudes, etc. are also tensions in collaboration.

Data Analysis

Side-by-side comparisons of the data from the scoping review and interview study revealed complementary and overlapping findings. However, the data sets were not weighted equally. The interview study was explicitly designed to develop an understanding of the

phenomenon of collaboration between OTs and teachers and allowed for probing and clarification of participants' responses, whereas the literature in the scoping review had various objectives and was not evaluated for quality of evidence. Thus the interview data was weighted greater than the scoping review data. Although the scoping review and qualitative interview study were conducted separately, both studies were similarly coded using open and axial coding. The findings from the scoping review were used to expand on individual themes from the interview study. In effect, the data from the interview study formed the foundation of the understanding of the phenomenon, while the data from the scoping review added greater context and depth of understanding. Together, the data sets contributed to a more nuanced understanding of the phenomenon.

The combined data sets underwent a theoretical, or selective, coding phase (Corbin & Strauss, 1990; Saldaña, 2009). Theoretical coding required analysing the coded data for a core category "that appears to have the greatest explanatory relevance" for the phenomenon (Corbin & Strauss, 2008, p 104). According to Corbin and Strauss (1990), the core category represents the central phenomenon of the study, while other categories stand in relation to the core as "conditions, action/interactional strategies, or consequences of the latter" (p. 424). Corbin and Strauss also recommend the use of diagramming to assist in the integration of categories. Trialing different visual representations of the categories interacting with each other eventually led to the accedence of two interacting subthemes as the core of the phenomenon with the other categories acting as tensions and facilitating factors (see Figure 4.1).

Conceptual Framework

Figure 4.1 is a visual representation of the conceptual underpinnings of collaboration between OTs and teachers. The figure is comprised of two concentric circles. The outer circle

represents the facilitating factors and tensions in collaboration. Inside the inner circle of the figure are two intersecting axes. The horizontal axis is a continuum from expert status to co-equal status. The vertical axis is a continuum from fear of judgment to trust. Both trust and co-equal status were themes within the supertheme *relationships*. Their centrality to collaboration is predicated on their essential nature: if one of the partners in the collaboration acts as an expert, the flow of ideas and suggestions is one-way, limiting possible synergies between the OT and teacher; without trust in the relationship, opportunities may be missed from fear of asking questions or admitting not knowing the solution or understanding material.

The interaction between the continua, along with the mitigating tensions and facilitating factors determines the quadrant in which the collaboration resides. Thus, a collaboration marked by trust and equality may still be a poor collaboration if negative mitigating factors overwhelm the collaboration. Similarly, although collaboration may begin in any quadrant, a "willingness to improve" on the part of either or both the OT and teacher can enable movement to another quadrant. The four quadrants are:

- Ineffective Collaboration (--): marked by a lack of a relationship between OT and teacher, alienation through expert dominance, one or both partners afraid of being judged, afraid to ask questions or seek clarification
- Missed Opportunities for Collaboration (+-): marked by co-equality of partners, but one or both partners are afraid of being judged, afraid to ask questions or seek clarification.
- Minimal Collaboration (-+): marked by trust between partners but still dominated by one partner.

- Effective Collaboration (++): marked by co-equal status between OT and teacher and trust between OT and teacher, OT and teacher possess knowledge, skills, behaviours, attitudes needed to collaborate, presence of facilitating factors such as resources to work with and support from administration.

A potential consequence of effective collaboration, as depicted in Figure 4.1, is a transformative outcome. Effective collaboration has the potential to lead to a transformation—an essential change in the form or character of both the collaboration and outcomes of that collaboration. Changes include vanishing boundaries between the OT and teacher during collaboration so that both professionals can view the case through the lens of the other professional, so that synergies can be maximized. As a result, knowledge gained from the process is translated so that other students may benefit, as collaboration around one student may create benefits more broadly. Thus, transformative outcomes may be transformational for the collaborating professionals and students. The enabling factors of the outer circle along with the components of the inner circle are identified in Table 4.2, while the tensions of the outer circle are identified in Tables 4.1 and 4.3.

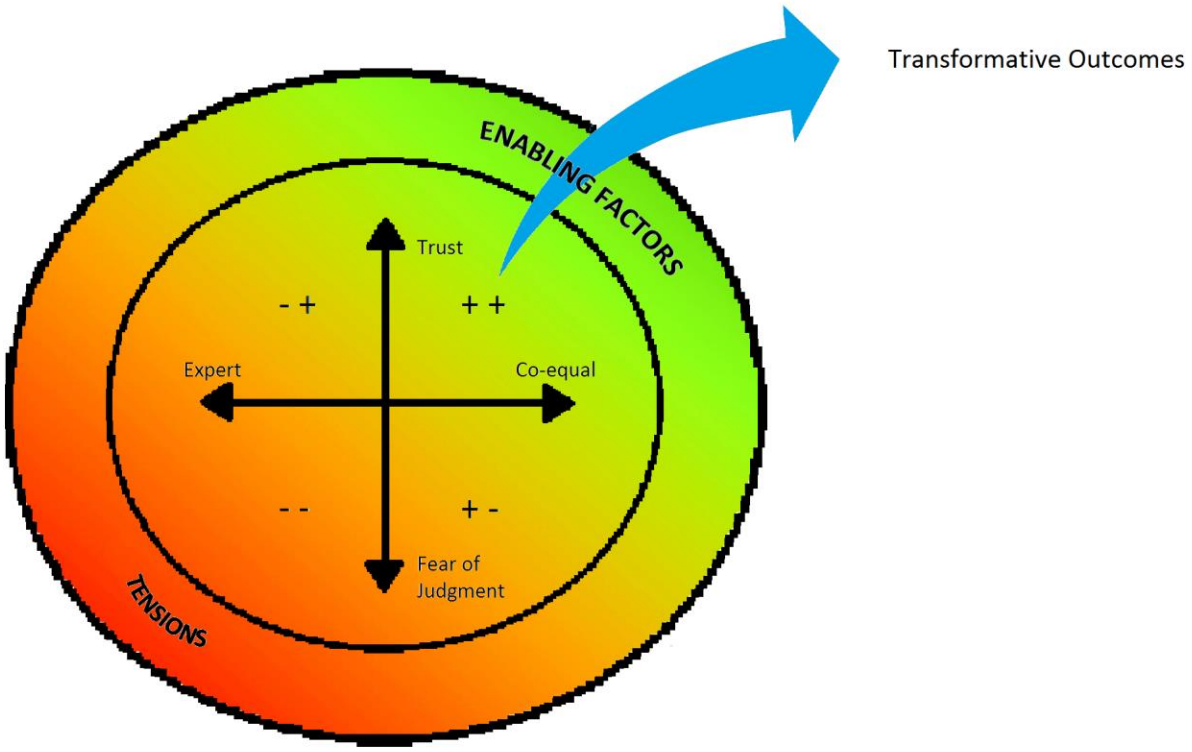

Figure 4.1. Conceptual framework of collaboration between OTs and teachers.

Using the Conceptual Framework

This study used theoretical coding on the integrated data of two prior studies to develop a conceptual framework for collaboration between OTs and teachers in SBOT. The results of this study share similarities with previously developed frameworks as well as important differences. Similar to this study, the framework developed by Blackwell and Dunn (2016) stresses the importance of relationship building. According to the authors, "the therapist invests in a relationship with the teachers rather than indicating a need to have control over implementation" (Blackwell & Dunn, 2016, p. 132). This relates to the idea of equality in the relationship, something also stressed in this study. Likewise, equality between the OT and teacher is also stressed in the framework developed by Bose and Hinojosa (2008).

Other similarities between this framework and those developed by Blackwell and Dunn (2016) and Bose and Hinojosa (2008) include an emphasis on tensions in collaboration. Bose

and Hinojosa, for example, make note of collaboration between OTs and teachers being impeded by OTs viewing themselves as experts. Bose and Hinojosa also mention time as a constraint, and the need for support from school administration. While not included in the visual representation of their framework, the Blackwell and Dunn make explicit mention of missed opportunities, analogous to tensions, including poor communication, the OT acting as an expert, and the OT not showing respect to the teacher.

Although there are several commonalities between this framework and frameworks by Blackwell and Dunn (2016) and Bose and Hinojosa (2008), there are also important differences that should be noted. Importantly, Blackwell and Dunn emphasize the teacher demonstrating investment in the collaboration and the therapist sharing ideas, offering encouragement, and building the relationship between the collaborators. In the framework developed in this study, however, encouragement, investment, and relationship building are exhibited by both of the professionals. Furthermore, although both Blackwell and Dunn and Bose and Hinojosa note that collaborations can be impeded by the OT acting as an expert (the teacher is not mentioned as taking on a detrimental expert role), neither place this on an expert to co-equal continuum. Additionally, neither Blackwell and Dunn nor Bose and Hinojosa include a continuum of judgement to trust in their frameworks.

Implications

This conceptual framework has implications for how collaboration between OTs and therapists is understood, how such collaborations can be improved by policy, and how such collaborations can be improved through OT and teacher education. SBOT is often described as collaborative (e.g., Ontario Society of Occupational Therapists, 2015); however, what it means to be collaborative is not consistently defined. One particular definition of collaboration used in

occupational therapy literature is "a style for direct interaction between at least two co-equal parties voluntarily engaged in shared decision-making as they work towards a common goal" (Friend & Cook, 2000, p. 6). The framework developed in this study adds to this understanding of collaboration by depicting equality along a continuum from expert to co-equal, and adding an intersecting continuum of trust. Thus, according to this conceptual framework, both co-equal status and trust should be understood to be central to collaboration between OTs and teachers.

The conceptual framework developed in this study has implications for policy on SBOT. The environment-level tensions *nature of the school setting*, *nature of OT service delivery*, and *not enough time* can all be positively affected through policy. For example, policies on occupational therapy service delivery can address tensions that arise from the OT being an outside visitor in the school. Two previous studies have explored changing SBOT service delivery models with promising results: in Canada, the Partnering for Change (P4C) program (Campbell, Missiuna, Rivard, & Pollock, 2012), and in the United Kingdom, the Occupational Therapy into Schools program (Hutton, 2009). Both programs saw OTs embedded into schools. P4C, for instance, studied a service delivery model that saw seven OTs embedded in 10 Ontario schools. Each therapist spent one full day per week in their assigned school(s) for between five to nine months where they worked with teachers to identify children with coordination difficulties, and subsequently trial and demonstrate strategies that support the children's functioning in school (Campbell et al., 2012).

According to Campbell et al., the OTs that participated in P4C were unanimous in their belief that building relationships took time and that their consistent presence in the school was essential to building the genuine collaborative partnerships with teachers that had formed. As well, because the OTs were in the school for full days, they were better able to provide timely

support to teachers (Missiuna et al., 2012a). Missiuna et al. (2012b) contend that spending time in classrooms also allows therapists to become familiar with teachers' styles and curriculum expectations. This sort of familiarity developed amongst the OTs participating in P4C. After working alongside the teachers, OTs began to change the sort of recommendations they made because they realized the recommendations they were making prior to participating in P4C were not realistic in a classroom setting (Campbell et al., 2012).

Missiuna et al. (2012a) found the teachers involved in the Partnering for Change program preferred this type of service delivery to the previous delivery model where OTs were visitors in the school. Similarly, OTs found the P4C model more professionally rewarding than their previous service delivery model (Campbell et al., 2012). Furthermore, teachers also reported increased knowledge about motor development and improved awareness of children with coordination difficulties (Missiuna et al., 2012a). According to Missiuna et al. (2012a), P4C has shown that OTs with a wide range of experience can successfully transition to a model of service delivery where they are not merely visitors in the school. Policies that embed OTs within the school system may have similar positive outcomes on collaboration.

Other policy changes may include the provision of coverage for teachers to leave the classroom and collaborate formally with the OT, rather than attempting to do so while teaching an entire class. However, simply because people meet does not necessarily ensure that collaboration will occur (Friend, 2000). This is particularly true if other factors, such as trust and equality, are not considered. This illustrates how any single suggested policy change alone may not be enough to ensure transformative outcomes in collaborations. Rather, if transformative outcomes are the desired end product of SBOT collaborations, then the will of all involved parties must be brought about to enact numerous changes in concert.

Future Work

This study found a central component of collaboration between OTs and teachers to be trust. According to Bryson, Crosby, and Stone (2006), trust facilitates the work of collaboration and holds collaborations together. The authors contend that one way to build trust is through demonstrating competency (Bryson et al., 2006). Although not described as competencies within this conceptual framework, several components of the facilitating factors—namely attitudes, skills, knowledge, behaviours, and beliefs—can be viewed as competencies required for collaboration between OTs and teachers. Future work should assemble the facilitating factors from this study that can be considered competencies into a competency framework. Such a framework can be used in the professional development of OTs and teachers so that they can more effectively demonstrate competence while collaborating with each other. Additionally, other health care professions that collaborate with teachers in school-based services, such as physiotherapy and speech language pathology, may benefit from such conceptual frameworks. Although it is expected that there will be similarities in the conceptual frameworks across disciplines, it is likely that there are unique tensions and challenges to be developed. Thus, the applicability of this conceptual framework to other health care professions that collaborate with teachers should be explored.

Limitations

Although this study employed selective coding, which is a feature of grounded theory, this study was not in itself a grounded theory. A grounded theory study featuring theoretical sampling would likely have resulted in participants and other data sources not included in this study and thus may have yielded a different conceptual framework. Furthermore, all the interview participants were from Ontario, Canada, although from several different school boards

and communities. This limits the insights gleaned from the participants, as collaboration may look different in other jurisdictions. However, this limitation was mitigated by the scoping review, which produced data from multiple jurisdictions within the English speaking world. An additional limitation is that there was only one secondary level school teacher among the participants. As such, the applicability of this conceptual framework to collaborations between OTs and teachers at the secondary school level may not be as strong as at the elementary school level. At the secondary level, students typically attend multiple classes per day, each with a different teacher. Teachers may not have the same opportunities to work with the student for full school days. This may affect how the OT structures their recommendations and their service delivery. Thus this conceptual framework should be validated for use at both the elementary and secondary school levels.

Conclusion

OTs and teachers often collaborate with each other to help students with special needs access curricula. Despite the importance of these collaborations, there has been little in the literature to help understand this phenomenon at the conceptual level. This conceptual framework offers new insight into collaborations between OTs and teachers by locating both trust and equality at the centre of the collaboration. It is hoped that this competency framework will be used to improve collaborations between these two professions by informing professional development and policy changes.

Chapter 5

Developing a Competency Framework for OT-Teacher Collaborations

Beginning in the 1980s, the field of health care began to adopt core competencies to articulate the knowledge, skills, attitudes, and other characteristics that are expected of heath care providers (Calhoun et al., 2008). Individual professions, including occupational therapy, developed competency frameworks that form the basis of accreditation processes and pre-service curricula development (Rodger, Clark, Banks, O'Brien, & Martinez, 2009). Meanwhile, the growing trend toward teamwork among health care providers engendered interprofessional collaboration (IPC) as essential to the provision of health care (Leggat, 2007). To address this, competencies for IPC have been developed (e.g., Canadian Interprofessional Health Collaborative [CIHC], 2010; Leggat, 2007). These IPC competencies were designed to support curricula development for interprofessional education (IPE) between different health care professions (CIHC, 2010).

Unfortunately, the competencies for IPC in the literature are specific to the field of health care. As a result, non-health fields, such as education, are outside the scope of these IPC competencies. This is problematic because occupational therapists (OTs) routinely collaborate with teachers for the benefit of students with various special needs. Thus, the purpose of this study was to develop a set of competencies and a competency framework for IPC between OTs and teachers.

Competencies and Competency Frameworks

The term "competency" has appeared frequently in literature since the 1980s; however, there is no single agreed open definition for competency (Venegas & Thill, 2015). For instance, Hoge, Tondora, and Marrelli (2005) define competency as "a measurable human capability that

is required for effective performance" (p. 517), while Shippmann et al. (2000) list a number of definitions, including "a construct that helps define level of skill and knowledge" (p. 706). Although there are numerous definitions of competency, such definitions often contain a mixture of knowledge, skill, abilities, motivation, and beliefs (Fleishman, Wetrogan, Uhlman, & Marshall-Mies, 1995). According to Zemke (as cited in Shippmann et al., 2000), the term competency "has no meaning apart from the particular definition with whom one is speaking" (p. 706). For the purpose of this study, competency is defined as the attitudes, skills, knowledge, behaviours, and beliefs required for successful collaboration between OTs and teachers. This definition was selected because its components frequently appear in the literature on competencies (e.g., Athey & Orth, 1999; Marrelli et al., 2005; Mirabile, 1997; Shippmann et al., 2000).

The successful completion of most tasks requires the simultaneous or sequenced use of multiple competencies (Hoge et al., 2005). It is the possession of these competencies that differentiates "high performers" from "average performers" (Shippmann et al., 2000, p. 706). Indeed, according to Rodger et al. (2009), "competence" has become the yardstick against which occupational therapy is expected to measure the quality of its members. In Canada, for a pre-service occupational therapy program to be accredited, it must address the knowledge, skills, and abilities outlined in the *Profile of Practice of Occupational Therapists in Canada* and the *Essential Competencies* as outlined by the Canadian Association of Occupational Therapists (CAOT) and the Association of Occupational Therapy Regulatory Organizations (ACOTRO), respectively (ACOTRO, 2011; CAOT, 2012b).

The acquisition of competencies can be through talent, experience, or education (Verma, Paterson, & Medves, 2006). In health care education, competencies foster accountability and

lead to performance evaluation that is consistent and equitable (Verma et al., 2006). To increase the effectiveness of training and educational programs, competencies are often organized into competency frameworks (Verma et al., 2006). A competency framework is a conceptual model that combines and describes the individual competencies that are required for effective performance in a particular job, job family (i.e., group of related jobs), organization, function, or task (Hoge et al., 2005; Marrelli, Tondora, & Hoge, 2005).

According to Hoge et al. (2005), a complete competency framework is typically organized around clusters of knowledge, skills, abilities, or other characteristics. Individual competencies that comprise each cluster are listed, defined, and described. Behavioural examples are also provided that illustrate how the competency is demonstrated at different levels of proficiency (Hoge et al., 2005). However, a competency framework may look different, depending on the methods used to determine the competencies and the requirements of the end users (Mirabile, 1997). For instance, a competency framework can help pre-service and in-service professionals elucidate their learning needs by identifying specific areas of practice where they could enhance their level of capabilities (Suter et al., 2009). Thus, competency frameworks help articulate standards of practice in concrete ways that can direct current and future professional development needs (Suter et al., 2009).

Interprofessional Competencies of OTs and Teachers

In Canada, competencies for regulated professions are often developed by professional colleges and professional associations. In occupational therapy, competencies have been developed by the CAOT and ACOTRO, the national organization of colleges of occupational therapy. However, there does not appear to be a competency framework for Canadian teachers,

though individual provincial regulatory bodies have produced standards of practice for the teaching profession.

Occupational therapy competencies are disseminated in the *Essential Competencies of Practice for Occupational Therapists in Canada* (ACOTRO, 2011) and the *Profile of Occupational Therapy Practice in Canada* (CAOT, 2012b). Developed collaboratively, these two works are related and complementary (ACOTRO, 2011). The *Essential Competencies* document describes what is seen and heard in everyday occupational therapy practice when a "competent occupational therapist demonstrates the appropriate knowledge, skills, and attitudes for the occupational therapy practice context in Canada" (ACOTRO, 2011, p. 3).

According to ACOTRO (2011), the *Essential Competencies* aids regulators in developing and monitoring guidelines for entry-to-practice registration and in developing and monitoring standards of practice. Additionally, the *Essential Competencies* aid OTs by supporting self-reflection, evaluation, and professional development (ACOTRO, 2011). The *Essential Competencies* is organized by functions required by OTs. These functions are broken down into the competencies needed to perform the function. Performance indicators are then used to describe the inter-related set of factors that define the expected level of performance for OTs, followed by cues that give examples of everyday practice to help illustrate performance indicators (ACOTRO, 2011). Interprofessional collaboration is listed among the different competencies. Specifically, the *Essential Competencies* state:

Communicates and Collaborates Effectively

- Collaborates with client, interprofessional team, and other stakeholders.
    - Explains role in client services to team members and clients.

- Demonstrates receptiveness to others' perspectives that serve the best interest of the client.
    - *Cues: considers others opinions and perspectives*
- Demonstrates flexibility within team.
    - *Cues: consults with, listens to, tasks with, supportive of, responsive to, collaborates with*
- Asks for support when appropriate.
- Demonstrates leadership techniques appropriate to the situation.

(ACOTRO, 2011, pp. 23-24)

While the *Essential Competencies* document uses functions to describe effective performance of occupational therapy, the *Profile of Occupational Therapy Practice in Canada* (CAOT, 2012b) uses roles to sort competency statements. The CAOT made use of roles in the *Profile* to enhance interprofessional collaboration since many other professions use "common roles language" and roles are broadly understood outside the profession (ACOTRO, 2011, p. 4). The *Profile* describes the skills, knowledge, and abilities of OTs on a continuum from competent to proficient (CAOT, 2012b). The *Profile* lists the key competencies of each role for both competent and proficient practitioners, along with the enabling competencies of a competent practitioner. Collaborator is one of the seven roles delineated in the *Profile*. One of the key competencies of collaborator listed is, "Work effectively in interprofessional and intraprofessional teams" (CAOT, 2012b, p. 8), while the analogous key competency for a *proficient* practitioner is listed as: "Work effectively in interprofessional and intraprofessional teams, including with challenging clients or team members" (p. 11). The enabling competencies for a competent practitioner are:

- Demonstrate an understanding of the roles and responsibilities of team members.
- Demonstrate a respectful attitude towards team members.
- Include the client as active team member whenever possible.
- Support positive team dynamics.
- Work with team members using shared decision-making to meet the needs of the client.
- Work with team members to assess, plan, and provide an integrated approach to services for clients.
- Respect team ethics, including confidentiality, resource allocation, and professionalism.
- Lead the team when appropriate, working collaboratively with team members to deliver client-centred services. (CAOT, 2012b, p. 8).

According to the *Profile*, interprofessional practice is a growing context of practice for many OTs in Canada (CAOT, 2012b). The profile notes that interprofessional collaboration requires OTs to understand their own professional roles as well as the general scope of practice of other "health professionals" in order to utilize the competencies of the "health team" for optimal client service and outcomes (CAOT, 2012b, p. 14). Although the *Profile* acknowledges the importance of IPC, it has operationalized IPC as a form of practice between health professionals who make up a health team. This fails to capture the nature of collaboration that occurs between OTs and teachers, who are not health professionals and work outside of the health sector.

There does not appear to be a competency framework for the teaching profession in Canada available in the literature, although individual provincial regulatory bodies of teachers have released standards of practice. According to the Ontario College of Teachers (OCT), for

instance, the standards of practice and ethical standards developed by the OCT clearly set out the high standard of competence that teachers must maintain (OCT, 2000). However, as noted by the British Columbia Ministry of Education (2012) in its document, *Standards for the Education, Competence, & Professional Conduct of Educators in British Columbia*, standards are not detailed descriptions of teaching competency, rather they are statements of principle upon which detail can be built. Thus, although similar, standards are not the same as competencies.

Another publication by the OCT (2016), the *Professional Learning Framework for the Teaching Profession*, which includes the *Standards of Practice* and the *Ethical Standards* for Ontario teachers, claims to encourage professional collaboration and interprofessional practice, though it does not describe what interprofessional practice between teachers and other professions looks like. In 2015 the OCT, along with the College of Early Childhood Educators (CECE), released *Exploring Interprofessional Collaboration and Ethical Leadership*. However, this document only discusses interprofessional collaboration between teachers and early childhood educators, both of which are professions in the field of education.

A sample of competencies and standards from the OT and education regulatory literature is provided in Table 5.1. For education, literature from the *Foundations of Professional Practice* (OCT, 2016), developed by the OCT, was surveyed as this study occurred in Ontario. The College of Occupational Therapists of Ontario has not developed its own competencies document, so the *Profile of Practice of Occupational Therapy in Canada*, produced by the Canadian Association of Occupational Therapists (CAOT) (CAOT, 2012b) was surveyed. These two documents were surveyed for evidence of a similar value placed on collaboration.

Table 5.1

Comparison of OT competencies and teaching standards on collaboration

OT competency	Teaching standard
As a Collaborator, occupational therapists work effectively with key stakeholders to enable participation in occupations by using and promoting shared decision-making approaches. Occupational therapists collaborate, both in an interprofessional and intraprofessional environment, sometimes leading, and sometimes sharing with key stakeholders including professionals and other members of the community. Occupational therapists work closely with stakeholders together at one site or are extended groups working across multiple settings and in the broader community. (CAOT, 2012b, p. 3)	Learning communities in classrooms, schools and educational systems across the province enable the teaching profession to pursue the goals and aspirations identified in this document. Collaborative learning communities may be formed to include: School staff who plan together and inquire into student learning, select instructional materials, participate in peer coaching, pilot new initiatives or share ideas and resources. Parents and members of the community who share their knowledge and skills with members of the profession to support classroom and school activities. (OCT, 2016, p. 17)

Although worded differently, the substance of the statements in Table 5.1 is conceptually similar—that is, both professions value collaboration with others outside their own profession because of the potential benefits that may be realized for their own practice and thus their clients/students. This "enlightened self-interest" (Lawson & Sailor, 2000, p. 11) can be

harnessed to facilitate the creation of interprofessional learning opportunities between OTs and teachers.

Interprofessional Education

One means of attaining competency is through professional education (Verma et al., 2006). A set of mutual competencies for collaboration between OTs and teachers could be used to guide curricula development for interprofessional education (IPE) learning opportunities. Literature in both occupational therapy and education have called for the pre-service teaching of competencies needed for collaboration for over 20 years (e.g., Coben, Thomas, Sattler, & Morsink, 1997; Sandler, 1997; Swan & Sirvis, 1992), while more recent literature has specifically advocated for IPE between these professions (e.g., Patton, Hutton, & MacCobb, 2015; Wehrmann, Chiu, Reid, & Sinclair, 2006).

IPE is defined as occasions when members of two or more professions learn with, from, and about each other to improve collaboration and the quality of care (Centre for the Advancement of Interprofessional Education [CAIPE], 2012). IPE is distinct from multiprofessional education, which involves professionals learning side by side, but not necessarily from or about each other (CAIPE, 2012). Early initiatives in IPE have been described as "isolated, reactive and often short-lived" (Barr, 2002, p. 11). Although not always called IPE at the time, parallel interprofessional movements in different fields of practice occurred with the same objective of improving working relations between health, social care, and sometimes other professions (Barr, 2002). IPE was seen as a way of overcoming prejudice and ignorance among participating professions. In one of the earliest examples of IPE in the literature, Szasz (1969) described the silo nature of health professions, saying:

> It appears that, among other problems, the health professionals employ their talents inappropriately, and, as a consequence, scarce human resources are wasted. Evidence

> also indicates fragmentation and compartmentalization, both of scientific investigation and the approach to human problems, and of poor communication between those who provide different components of the health services. (p. 449–450)

By learning together, different professions would work together more effectively, thereby improving the quality of care for patients (Barr, 2002). This would help make the value of collaboration a part of professional socialization by increasing understanding of different professions and valuing what other professions bring to collaborative practice (Barr, 2002).

Barr (2002) recognized a number of contributing factors to the current trend of implementing of IPE. Among these included trends in higher education that saw independent schools for the separate health professions being integrated into the mainstream of higher education. Leadership in some passed from profession-specific teachers to generalist educational administrators who were disposed to look for common curricula to gain economies of scale (Barr, 2002, p. 13). Meanwhile, remodelling curricula into modules helped combine common elements across professions. Furthermore, the production costs of open and distance learning materials often could only be borne by attracting students from a range of professions (Barr, 2002).

In Canada, growth of IPE has also been influenced by the Royal Commission on the Future of Health Care in Canada, also known as the Romanow Report, which suggested IPE and collaboration are necessary to achieve effective delivery of health care (Romanow, 2002). The Romanow Report was followed by the First Ministers' *Accord on Health Care Renewal* in 2003, which identified collaborative practice in interprofessional teams as an essential focus for health care and health professional education (CIHC, 2012). Funded by Health Canada, the Interprofessional Education for Collaborative Patient-Centred Practice (IECPCP) Initiative was created to help implement the goals of the *Accord*. Specific objectives of the IECPCP included

increasing the number of health professionals trained for collaborative, patient-centred practice before and after entry to practice, and facilitating interprofessional collaborative care in both the education and practice settings (Gilbert, 2010). The IECPCP initiative funded the development of various projects on IPE between 2005 and 2008, such as the Queen's University Interprofessional Patient-Centred Education Direction (CIHC, 2012).

In 2006, Health Canada founded the Canadian Interprofessional Health Collaborative (CIHC) to act as a hub for resources and networking around IPE. The CIHC links together the 20 projects funded under the IECPCP Initiative as well as others interested in IPE to share information, best-practices, and lessons learned (CIHC, 2012; Gilbert, 2010). The goal of the CIHC is to share this knowledge with health system planners, health providers, and educators to ensure IPE is a key part of policymaking and curricula development (Gilbert, 2010). To that end, the CIHC developed the *National Interprofessional Competency Framework*, a set of competencies that underlie collaborative practice (CIHC, 2010).

Unfortunately, the scope of the CIHC and the *National Interprofessional Competency Framework* is within the health sector. Similarly, the document *Exploring Interprofessional Collaboration and Ethical Leadership* by the OCT and CECE (2015), focuses on collaboration within the education sector. The lack of a cross-sector set of competencies is problematic if the aim of OTs and teachers engaging in interprofessional collaboration is to effectively benefit students and their learning.

Methods

As Shippmann et al. (2000) point out, errors in developing a competency framework cascade down into an unknown amount of error built in to any resulting application of the framework. Thus, careful attention must be paid to the research methods used to develop the

competency framework. To ensure confidence in the research, the design of the current study adapted recommendations made by Marrelli et al. (2005) to guide the development of the competency framework from the initial stages of determining the scope of the model, through data collection, and to the end product.

Marrelli et al. (2005) recommend a seven step process for competency modelling. These steps are: (a) define the objectives, (b) obtain the support of a sponsor, (c) develop and implement a communication and education plan, (d) plan the methods of data collection, (e) identify the competencies and create the competency framework, (f) apply the competency framework, and (g) evaluate and update the competency framework. The scope of this study did not include implementing the competency framework, therefore steps (f) and (g) were not included.

Step One

According to Marrelli et al. (2005), defining the objectives is critical to the process of creating a competency framework. Marelli et al. provide four questions to answer during this step: (a) What is the unit of analysis? That is, is the objective to identify the competencies required for effective performance for a job family, a specific job, or a narrower task? (b) Why is there a need to develop a competency framework? (c) What is the relevant timeframe? And (d) how will the competency framework be applied? The unit of analysis was set as the task of collaborating between OTs and teachers. As previously mentioned, there exists a need for a competency framework for collaboration between OTs and teachers because many of the tensions in such collaborations are rooted in competencies. The timeframe refers to whether the competencies to be considered are the competencies needed at present or predicted to be needed in the future (Marrelli et al., 2005). This study was designed to investigate and address

competencies needed at present. Because of the tensions in collaboration linked to competencies, the competency framework was designed to be applied in professional development, such as pre-service learning.

Step Two

Marelli et al. (2005) recommend obtaining the support of a sponsor, such as a manager within the organization that participants will be drawn from, to facilitate participant recruitment. Support was sought from the special education coordinators of two school boards. Both special education coordinators contacted the teachers in their respective school boards whom they knew to have experience collaborating with OTs.

Step Three

A communication and education plan is intended to convince potential participants of the value of participation. To affect this, a letter of information was provided to all potential participants that informed them of the study's aim. Buy-in from stakeholders was considered to be the opportunity to share their insights on what is needed for successful collaboration between OTs and teachers and therefore shape the resulting competency framework.

Step Four

This step involves selecting data collection methods, the sample of individuals who will be participants, and the methods used to analyze the data. Marrelli et al. (2005) recommend using more than one method of collecting data to identify competencies. Since every method of data collection has relative strengths and weaknesses, multiple methods complement each other and compensate for weaknesses in a singular approach (Marrelli et al., 2005). This study employed a methodological triangulated design (Morse, 2003), composed of a scoping review and qualitative interview study. Qualitative method triangulation is increasingly advocated as a

strategy to achieve a more comprehensive understanding of the phenomenon of interest (Lambert & Loiselle, 2008). First a scoping review (Chapter 2, Manuscript 1) of the literature on collaboration between OTs and teachers was conducted to determine the tensions that exist in collaboration between these professions. Second, one-on-one interviews (Chapter 3, Manuscript 2) were conducted with OTs, teachers, and parents of students who have received school-based occupational therapy (SBOT).

The scoping review sought articles that noted tensions in collaborations between OTs and teachers. Four databases and four journals were searched, they were: (a) Education Source; (b) ERIC; (c) CBCA Education; (d) CINAHL; (e) American Journal of Occupational Therapy; (f) Australian Occupational Therapy Journal; (g) British Journal of Occupational Therapy; and (h) Canadian Journal of Occupational Therapy. Articles had to be published between 1990 and September, 2016 and be published in English. Search terms included teacher*, occupational therap*, and school based. A total of 30 articles were charted for data. Forty-six unique tensions emerged from the scoping review. Using an inductive analysis approach (Patton, 2002), 12 themes were developed and organized into three categories of tensions (Table 5.2).

Table 5.2

Categories and Themes of Tensions from Scoping Review

Professional Socialization	Person-Level Tensions	Environment-Level Tensions
Understanding One Another, Goals and Recommendations, What Collaboration Should Look Like	Ability to Build Relationships, Lack of Investment, Poor Communication, Proficiency of Skills, Views on Inclusion	Not Enough Time, Nature of School Setting, Nature of OT Service Delivery, The Parent

One-on-one interviews were conducted with OTs, teachers, and parents of children who have received SBOT. Therapists represented both public and private employers, while teachers represented both classroom teachers and learning resource teachers. The range of roles, experience levels, and employment type produced a sample that broadly represented the population of interest, an important factor in ensuring accuracy of data collected (Marrelli et al., 2005).

An interview guide was used to ensure consistency in questions between participants; however, follow-up questions were also used to elicit more detail from participants (Patton, 2002). Specific emphasis was placed on behavioural event questions, what participants considered ideal collaboration to look like, and what they considered to be best practices for collaboration. Data from the interviews were analysed using qualitative content analysis (Elo & Kyngas, 2008). This process led to the identification of 68 themes. Side-by-side comparisons of the data from the scoping review and interview study revealed complementary and overlapping

findings. However, the data sets were not weighted equally. The interview study was explicitly designed to develop an understanding of the phenomenon of collaboration between OTs and teachers and permitted probing and clarification of participants' responses, whereas the literature in the scoping review had various objectives and was not evaluated for quality of evidence. Thus the interview data was weighted greater than the scoping review data and formed the foundation of the understanding of the phenomenon, while the data from the scoping review added greater context and depth of understanding. Together, the data sets contributed to a more nuanced understanding of the phenomenon. This process resulted in a new list of 68 themes.

Step Five

According to Marrelli et al. (2005), in this step the individual competencies are identified and organized into a competency framework. Eliminating all themes that were not captured in the aforementioned operational definition of competency resulted in a set of 28 competencies. This set of competencies consisted of attitudes (3 competencies), skills (11 competencies), knowledge (3 competencies), behaviours (8 competencies), and beliefs (3 competencies). Marrelli et al. recommend that, to remain manageable, the number of competencies should be 20 or fewer and should be restricted to the competencies most critical to the job in question. However, the criticality—or measure of how important a particular competency is to a job (Mirabile, 1997)—is difficult to ascertain for collaboration between OTs and teachers. This is because much of the collaboration depends on mitigating factors, such as the needs of the student, which are beyond the control of the OT and teacher and can be highly variable between cases. Thus, each of the 28 identified competencies were developed into the competency framework (Appendix I). Each of the competencies were defined. Behavioural examples of each competency were extrapolated from the research data and described at three levels of

proficiency. Examples of either a high or low proficiency of each behaviour were taken from the research data that focused on positive or negative experiences of collaboration, respectively. Logical extensions were used to create the remaining proficiency levels for the behavioural examples. An example competency is provided below (Table 5.3).

Competency Framework Example

Table 5.3

Communicating with the OT/teacher

Definition	Conveying and receiving information about the case.	
Descriptors	• Establishes mutual understanding of the case with the other professional • Communicates in a timely manner • Listens to the other professional • Regularly provides feedback to the other professional • Able to communicate through different means	
Low Proficiency	Moderate Proficiency	High Proficiency
Communicates using language specific to one's profession, does not check for understanding with other professional.	Communicates using language specific to one's profession, checks for understanding with the other professional.	Checks for understanding with the other professional and, when possible, tailors the communication for the other professional (i.e., avoids profession-specific jargon, uses terms the other professional is familiar with).

Does not follow up with other professional between visits. Does not return calls/emails.	Follows up between visits and returns calls outside a reasonable length of time.	Follows up with other professional within an agreed upon length of time. Promptly returns calls/emails.
Does not pay attention to what the other professional says when communicating.	Pays attention to what the other professional says when communicating.	Demonstrates listening through body language, paraphrasing, seeking clarification.
Does not provide feedback to the other professional or provides negative feedback.	Provides generic, positive feedback.	Regularly provides feedback that is positive, specific, and instructive.
Communicates only in person.	Communicates with the other professional in-person, through email, telephone, or other means that facilitate contact between the professionals.	Communicates with the other professional in-person, through email, telephone, or other means that facilitate contact between the professionals. Asynchronous communications are clear and thorough.

Note. Throughout the competency framework, the term "professional" is used to denote when a competency applies to both OTs and teachers. The term "therapeutic techniques" appears throughout the framework and refers to actions that further a goal or recommendation for a student, but does not refer to the direct provision of therapy.

Discussion

Competencies have long been used to articulate the knowledge, skills, and attitudes expected of health care providers, including OTs (ACOTRO, 2011; Calhoun et al., 2008). More recently, competencies have been developed that seek to prepare health professionals for IPC (CIHC, 2010). However, these interprofessional competencies are insular to the health care sector and are therefore not designed to incorporate professions from other sectors.

This study drew on both a scoping review of the literature and multiple interviews with stakeholders to develop a competency framework specifically designed for the collaboration that occurs across sectors between OTs and teachers. The competency framework developed in this study consists of 28 different competencies. Although this framework includes competencies listed elsewhere for IPC (e.g., Leggat, 2007), it differs in that it is not generic to health care and makes a unique contribution to address the particular needs of OTs and teachers. For example, the competency framework in this study explicitly acknowledges the intersectoral nature of OT-teacher collaborations by including descriptors for OTs and teachers understanding one another as well as understanding the intersectoral context of SBOT. This framework is necessitated by a growing demand for SBOT services (Deloitte & Touche, 2010) and the absence of a pre-existing competency framework for intersectoral collaboration between OTs and teachers despite policies and public funding that bring these two professions together to collaborate. The result of this framework is an opportunity for OTs and teachers to work through the same set of competencies to enhance and develop their collaborative relationships in the service of students.

Implications and Future Research

According to Marrelli et al. (2005), the goal of competency modelling is to create a list of the most critical competencies required to effectively perform a specific job. As previously

noted, to remain manageable the number of competencies should be 20 or fewer (Marrelli et al., 2005). Thus, future research should survey OTs and teachers with experience in SBOT to determine what they consider the 20 most critical of the 28 developed competencies. The competency framework can be further refined through surveys and interviews of OTs and teachers to capture salient behavioural examples. Importantly, the competency framework needs to be validated as able to meet professional development needs of pre-service learners in-service OTs and teachers across different SBOT service delivery models. This will require the development of outcome measures and evaluation tools. Of note, the 20 most critical competencies may differ among professionals who operate in different service delivery models. For example, OTs that are employed by third party service providers may report a different set of 20 most critical competencies than OTs employed directly by a school board.

As stated in Verma et al. (2006), the acquisition of competencies can be through talent, experience, or education. The creation of a competency framework can help competency acquisition by supporting self-reflection and self-evaluation and by informing curricula development for in-service and pre-service learning opportunities (ACOTRO, 2011). Mirabile (1997) has described implementation as "the missing link" in leveraging competency frameworks (p. 77). Indeed, Mirabile has advised that competency frameworks have limited utility if there is no coherent and systemic implementation strategy to take advantage of the information they contain. This point suggests that active knowledge translation of the competency framework developed in this study may be more successful than passive knowledge translation. Thus using the competency framework to inform curricula development for organized learning opportunities may be more efficacious than more passive means of knowledge translation.

The competency framework developed in this study can be used for in-service or pre-service learning, though special emphasis should be placed on pre-service learning to ensure that OTs and teachers are aware of and have received training in the competencies required to collaborate upon entering the workforce. Ideally, such learning would be structured as IPE so that both OTs and teachers would have exposure to their counterparts, making learning to collaborate with each other more contextual than uni-professional learning about collaboration. The use of competency-based curricula in IPE to prepare pre-service professionals for IPC is not without precedent. The CIHC (2007) reported two such cases: one at the University of Minnesota and one at the University of Toronto. Documents from Queen's University (e.g., Office of Interprofessional Education & Practice [OIEPEP], 2014; OIPEP, 2015) also show the *National Interprofessional Competency Framework* (CIHC, 2010), has been tied to learning outcomes for IPE at that school.

There are, however, obstacles to implementing IPE at the pre-service level that may make such an endeavour difficult. For instance, timetabling may be problematic, especially since both OT students and teacher candidates are frequently away from campus for practicums; faculty teaching loads may make finding instructors difficult; and budget constraints may make developing and offering learning opportunities unaffordable. Likewise, in-service IPE may face similar obstacles in addition to overcoming the professional socialization of established OTs and teachers. Developing competencies among in-service professionals may necessitate changing pre-existing behaviours and thought patterns rather than creating new ones. As such, approaches to behaviour change, such as the Theoretical Domains Framework (Cane, O'Connor, & Michie, 2012) may need to be incorporated into any in-service IPE.

IPE based on this competency framework should be studied to validate if it meets the training needs OTs and teachers. Validation may include pre- and post-IPE questionnaires, focus groups, or field observations to see if participants feel more competent when collaborating or display more proficiency when collaborating compared to collaborating prior to participating in competency-based IPE. Additionally, validation may include tracking job retention data among OTs and teachers that have received training on these competencies along with collecting information on job satisfaction. Furthermore, validation may include tracking progress of students who have received SBOT from OTs and teachers trained in these competencies and comparing their outcomes to students who have received SBOT services from OTs and teachers not trained in these competencies to determine if there is a correlation between such training and student outcomes.

Limitations

There are important limitations to this study that should be acknowledged. Interview participants were all from Eastern Ontario and the Golden Horseshoe. The experiences that informed the responses of these participants may not be reflective of OTs and teachers on a broader scale. However, the scoping literature study that was conducted included literature from many different locations across several English-speaking countries. In addition, the competency framework developed in this study will not address issues related to SBOT service delivery models, such as such as funding issues or high OT caseloads.

Conclusion

In health care, collaboration between professionals has become standard practice (Calhoun et al., 2008). The division of labour among different health care providers means that no single professional can deliver a complete episode of health care (Leggat, 2007). This has led

to the establishment of interprofessional competencies to elucidate the characteristics of the ideal practitioner and to inform IPE (CIHC, 2010). However, these competencies are insular to the health care sector and were not developed to serve the intersectoral collaboration between OTs and teachers. The competency framework developed in this study rectifies this shortcoming in the literature on IPC. It is hoped that this competency framework will inform IPE opportunities for OTs and teachers and ultimately lead to better collaboration between these two professions.

Chapter 6

General Discussion

Occupational therapists (OTs) and teachers often collaborate for the benefit of students with special needs. Unfortunately, the available literature on competencies for interprofessional collaboration envisages collaboration as occuring between professions within the field of health care. Although occupational therapy is within the field of health care, the teaching profession is not. Thus, the available literature cannot be assumed to be applicable to collaborations between OTs and teachers. The overarching purpose of this research was to create a competency framework for collaboration between OTs and teachers that acknowledges the intersectoral nature of their collaborations.

Interprofessional & Intersectoral Collaboration

Interprofessional collaboration is heavily emphasized in health care. This emphasis has arisen due to complexities of patient health, specialization within and between health care disciplines, and the increasing complexity of hospital systems (Wells, Johnson, & Salyer, 1998). Similarly, the field of education has also seen an increased emphasis placed on the importance of interprofessional collaboration. This has been the result of an increasing complexity in educational service delivery, especially for students with special needs, and which has underscored the need for shared decision making among classroom teachers and other professionals (Mostert, 1996).

Although increasing complexity in health and education systems necessitates professionals working alongside each other, this alone does not entail interprofessional collaboration. For instance, much of the literature on interprofessional collaboration stresses the importance of the reciprocal nature of the collaboration. For example, a Cochrane Review on the

topic of interprofessional collaboration in the context of health care described it as "the process in which different professional groups work together to positively impact health care. IPC involves a negotiated agreement between professionals which values the expertise and contributions that various health care professionals bring to patient care" (Zwarenstein, Goldman, & Reeves, 2009, p. 2).

In a review of the health care literature, San Martin-Rodriguez, Beaulieu, D'Amour, and Ferrada-Videla (2005) attributed successful interprofessional collaboration to three categories of determinants: (a) organizational determinants (the conditions within the organization), (b) systemic determinants (conditions outside the organization), and (c) interactional determinants (interpersonal relationships within the team). Organizational determinants included the philosophy of the organization, team resources and administrative support (San Martin-Rodriguez et al., 2005). Among systemic determinants, the authors make note of professionalization, which leads to a differentiation of professionals and to territorial behaviours within the team, whereas collaborative practice depends on the mutual recognition by professionals of their interdependence as well as the acceptance of "grey zones" where their professional boundaries may overlap. Within interactional determinants, the authors state that a lack of understanding, respect, or appreciation of the contribution of other professionals constitutes a very real barrier to interprofessional collaboration (San Martin-Rodriguez et al., 2005).

Although there is a rich body of literature on interprofessional collaboration, much of it appears insular to the health sector. Collaboration across different sectors (i.e., intersectoral collaboration) appears to be less discussed. For instance, a January, 2017 Google Scholar search for "interprofessional collaboration" yielded approximately 16 000 results, while "intersectoral

collaboration" yielded approximately 7 170 results. However, owing to inconsistencies in definitions, some of the literature cited as interprofessional collaboration may indeed be describing intersectoral collaboration. For instance, definitions of interprofessional collaboration from the health sector, such as the aforementioned Cochrane Review definition, often explicitly frame interprofessional collaboration as a health care based teaming model. Within the health sector, team models that involve the participation of sectors outside of health, such as business, academia, government, and non-government organizations, are often referred to as intersectoral collaboration (Chircop, Bassett, & Taylor, 2014). These definitions contrast with literature from the education sector. Mostert (1996), for instance, defines interprofessional collaboration as "a mutual, reciprocal effort among professionals, families, and other caregivers to deliver effective interventions to children for their increased physical, emotional, and academic well-being" (p. 135), and makes explicit that such collaboration includes teachers and other helping professions. Thus, there appears to be a discrepancy in how the term interprofessional is applied across the health and education sectors. This may be problematic for research consumers and policy makers who may unintentionally overlook valuable research. In order to be consistent with the health literature and to acknowledge the different frames of reference operating when OTs and teachers engage in collaboration, this paper uses the term intersectoral collaboration to refer to collaboration between these two professions.

Both the health and education sectors have called for increased intersectoral collaboration (e.g., Coben, Thomas, Sattler, & Morsink, 1997; Public Health Agency of Canada, 2007). However, despite recognition of the need for intersectoral collaboration, there is only limited evidence of its implementation (Walsh, Brabeck, & Howard, 1999). Walsh et al. (1999) suggest that, while many professionals view themselves as engaging in collaboration, what they are

actually practicing might more aptly be described as cooperation. Different contributory factors for a lack of collaboration have been suggested. For instance, Walsh et al. (1999) note that conceptions of what it means to be a professional are inherently tied to an expert model that often inhibits collaborative relations. The notion of the professional as an unquestionable expert can lead to professionals gaining power over those who require their expertise and may lead them to compete for dominance over other professions (Walsh et al., 1999). As a result, professionals sometimes work as though they can solve the problems in their domain of expertise without the input and help of professionals in other fields (Walsh et al., 1999). Mostert (1996) contends that teachers have been trained to act autonomously in their everyday decision making, and as a result teachers and other professionals have historically been isolated from each other. Zwarenstein et al. (2009) further identify poor communication patterns, lack of understanding of one's own and others' roles and responsibilities, and conflicts due to varied approaches to client care as tensions that inhibit collaboration.

Although organizations such as the WHO (2011) and the Public Health Agency of Canada (2007) have called for increased intersectoral collaboration, such calls have lacked critical reflection on the processes needed to sustain such collaboration in light of the identified tensions (Chircop et al., 2014). The present study addressed this issue with respect to collaboration between OTs and teachers. This was achieved through meeting four objectives: (a) a scoping review of literature on tensions in collaborations between OTs and teachers, (b) a qualitative interview study on tensions and facilitating factors in collaboration between OTs and teachers, (c) a conceptual framework of collaboration between OTs and teachers, and (d) a competency framework for collaboration between OTs and teachers.

Summary of Findings

The results of this thesis both confirm and advance the existing literature on collaboration between OTs and teachers. For instance, findings from the qualitative interview study depict collaboration occurring along a continuum. Similarly, Thomas (as cited in Coben et al., 1997), also viewed collaboration as existing on a continuum, with collaboration at one end of the continuum and conflict at the opposite end. This is comparable to the effective collaboration and ineffective collaboration described in the interview study.

Three of the superthemes from the interview study, *rooted in realistic practicalities*, *relationships*, and *behaviours* share aspects with two of the four dimensions in D'Amour's model of collaboration: finalization and interiorization (as cited in D'Amour et al., 2005). Finalization, according to D'Amour et al., refers to the existence of common goals and vision, while recognizing the differing allegiances of the team members. Thus, finalization is similar to *rooted in realistic practicalities*, which recognizes the importance of making appropriate goals and acknowledging the different professional backgrounds of the OT and teacher.

Interiorization refers to the awareness by professionals of their interdependency and translates into a sense of belonging (D'Amour et al., 2005). Interiorization shares similar aspects of the superthemes *relationships* and *behaviours*, which include creating and maintaining a relationship with the other professional and including the other professional throughout the collaboration. In addition, D'Amour et al. (2005) noted the importance of authentic relationships, marked by trust, respect, valuing the other professional, co-equal status, and sharing responsibility, between collaborators. This echoes the supertheme *relationships* from this study, which affirmed each of these as important to collaboration between OTs and teachers. Thus, the superthemes *rooted in realistic practicalities*, *relationships*, and *behaviours* help

unpack finalization and interiorization in D'Amour's model by elaborating on their common features, while the conceptual model of collaboration developed in Chapter 4 describes the interdependency of these features to effective collaboration.

The interview study also found support from principals and school boards to be important, trust as a key determining factor in building a relationship between professionals, in-person meetings between the OT and teacher crucial to the back-and-forth sharing of ideas, and co-equal status to be necessary to effective collaboration. These findings conform to Bryson, Crosby, and Stone (2006), who proposed that intersectoral collaborations are more likely to succeed when they have committed sponsors and effective champions at many levels, formal planning, and trust between collaborators, and are threatened by power imbalances between collaborators.

Like Silverman and Millspaugh (2006), the interview study notes the importance of resource teachers. However, an important addition that the interview study adds is that, though resource teachers are an important facilitating actors, and may even be key facilitators, they are not a replacement for the classroom teacher. This finding underscores the tension that occurs when there is a lack of access to the classroom teacher and that access to a resource teacher should not be considered a replacement for access to the classroom teacher.

The conceptual framework similarly substantiates and adds to the existing literature on collaboration between OTs and teachers. For instance, a framework developed by Blackwell and Dunn (2016) stresses the importance of relationship building. According to the authors, "the therapist invests in a relationship with the teachers rather than indicating a need to have control over implementation" (Blackwell & Dunn, 2016, p. 132). This relates to the idea of equality in

the relationship, something also stressed in this study. Likewise, equality between the OT and teacher is also stressed in a framework developed by Bose and Hinojosa (2008).

Furthermore, the framework developed in this study and those developed by Blackwell and Dunn (2016) and Bose and Hinojosa (2008) include an emphasis on tensions in collaboration. Bose and Hinojosa, for example, make note of collaboration between OTs and teachers being impeded by OTs viewing themselves as experts. Bose and Hinojosa also mention time as a constraint, and the need for support from school administration. While not included in the visual representation of their framework, the Blackwell and Dunn make explicit mention of missed opportunities, analogous to tensions, including poor communication, the OT acting as an expert, and the OT not showing respect to the teacher.

In addition to conforming to the extant literature, the conceptual framework developed in this study also adds to the literature. For example, whereas Blackwell and Dunn (2016) emphasize the teacher demonstrating investment in the collaboration and the therapist sharing ideas, offering encouragement, and building the relationship between the collaborators, the framework developed in this study emphasizes that encouragement, investment, and relationship building are exhibited by both of the professionals. Furthermore, although both Blackwell and Dunn and Bose and Hinojosa (2008) note that collaborations can be impeded by the OT acting as an expert, neither place this on an expert to co-equal continuum. Additionally, neither Blackwell and Dunn nor Bose and Hinojosa include a continuum of judgement to trust in their frameworks.

The greatest contribution this study makes is the development of a competency framework for collaboration between OTs and teachers, which functions as a knowledge tool that fills a gap in the literature. Although competency statements exist in occupational therapy, and standards exist for the teaching profession, these statements are often nebulous and designed to

support collaboration in general. In contrast, the competency framework developed in this study contains 28 specific competencies and is specifically designed for collaboration between OTs and teachers. Furthermore, the competency framework provides behavioural examples of each competency arranged in low, moderate, and high proficiency, and gives users a greater idea of how each competency looks in practice.

OTs and teachers collaborate with each other for the benefit of some students because neither profession alone can create the conditions those students need to achieve their potential in school. OTs and teachers effectively collaborating bring together two different frames of reference—health and education—that, when used in conjunction, avoid a reductionist view of the student, but rather provide a more complete picture of the student. According to Corrigan (2000), it is important to recognize that the movement to create collaborative education and health systems is value laden. For practitioners and policy makers who consider advocacy for students with special needs a professional and moral imperative, this research provides a basis for future work that may positively affect collaborations between OTs and teachers and thus those students that benefit from such collaborations.

Knowledge to Action Cycle & Future Directions for Research

According to Straus, Tetroe, and Graham (2013), to effect behaviour, practice, or policy change, it is necessary to move beyond the simple dissemination of new knowledge. For this reason, the Knowledge to Action (KTA) Process (Graham et al., 2006) was use to structure this study. The KTA process is divided into two concepts: (a) knowledge creation, and (b) action. Knowledge creation consists of three phases: knowledge inquiry, knowledge synthesis, and knowledge tools/products.

The objectives of this study mapped onto Knowledge Inquiry, Knowledge Synthesis, and Knowledge Tools of the KTA process. The first objective, a scoping review of the literature, aligns with Knowledge Synthesis of the KTA Cycle. The second objective, a qualitative interview study of OTs, teachers, and parents to understand collaboration between OTs and teachers in the Ontario context, and the third objective, a conceptual framework for interprofessional collaboration between teachers and occupational therapists, align with Knowledge Synthesis of the KTA Cycle. The fourth objective, a competency framework for collaboration between OTs and teachers, corresponds to Knowledge Tools in the KTA Cycle.

The KTA model accommodates different phases being carried out by different stakeholders working independently of each other and at different points in time (Graham et al., 2006). As such, future directions for research and policy can start where the work of this thesis stopped and focus on the action cycle of the KTA. The action cycle is concerned with the application or implementation of knowledge. The action cycle consists of the following eight phases: (a) identify a problem that needs addressing; (b) identify, review, and select the knowledge or research relevant to the problem; (c) adapt the identified knowledge or research to the local context; (d) assess barriers to using the knowledge; (e) select, tailor, and implement interventions to promote the use of knowledge (i.e., implement the change); (f) monitor knowledge use; (g) evaluate the outcomes of using the knowledge; and (h) sustain ongoing knowledge use (Graham et al., 2006, p. 20).

There are a number of points within the action cycle that future research could address. For instance, future research could focus on the validation of the competency framework. Validation could include feedback from OTs and teachers to reduce the 28 competencies to a smaller number of competencies considered core to collaborating. This validation could be

further adapted for local contexts, since school-based occupational therapy service (SBOT) delivery models vary across and within jurisdictions. Furthermore, future research could include feedback from curriculum developers at the post-secondary level to determine the usefulness of the competency framework and the format it is presented in, in the development of curricula.

The competency framework can be used in curricula development for interprofessional education (IPE) opportunities between student OTs and teacher candidates. Future research could explore ways of implementing such IPE and overcoming potential barriers. If such IPE opportunities were to be created, research would be needed to monitor, evaluate, and sustain such knowledge use. Use of the competency framework at the pre-service level would also require an assessment of barriers to its use, part of the KTA action cycle. Barriers previously identified in the literature include scheduling, discrepancies in student numbers from different professional programs, divergent learning and assessment styles, different curricular periods, and limited resources (Horsburgh, Lamdin, & Williamson, 2001). In addition, it may be particularly difficult for pre-service IPE between occupational therapy and education, as they typically belong to different faculties which would have to determine how to divide the associated costs and resources to develop and administer IPE together.

Implications

The findings of this study have implications for various knowledge users. Pre-service and in-service professionals, for instance, can use the conceptual and competency frameworks to guide self-directed learning. The findings can also be used to guide the development of organized learning activities for both pre-service and in-service professionals. Utilizing the information contained in this thesis at the pre-service level, in particular, has the benefit of ensuring that OTs and teachers are exposed to this material upon entering the workforce.

Winton, McCollum, and Catlett (1997) define pre-service professional preparation as "all strategies (e.g., mentoring, consultation, self-study, guided decision making) and processes (e.g., personnel standards, licensure, certification, competencies) that create a community of learners with the capacity to grow and develop in the face of ongoing changes in the field" (p xv). Thus, pre-service preparation is dependent upon the criteria established for performing the competencies of that profession. Therefore, additional knowledge users, including licensing bodies such as the Ontario College of Teachers and the Association of Canadian Occupational Therapy Regulatory Organizations, and universities that are responsible for the training of OTs and teachers, can also use this research for determining appropriate learning outcomes and curricula for pre-service learning of OTs and teachers so that they can enter the work force prepared to collaborate with each other.

Limitations

There are important limitations to this study that should be noted. For instance, the articles that were included in the scoping review were not evaluated for study quality, as this is not an objective of scoping reviews (Arksey & O'Malley, 2005). As such, articles with less than rigorous methodology may have been included in this review. Additionally, SBOT service delivery and OT and teacher training vary across and within jurisdictions and can change over time. As such the findings of the scoping review may be applicable to many instances of collaboration between OTs and teachers, but should not be considered generalizable to all such cases.

The greatest limitation of the interview study is the sample size. Considering the breadth of SBOT, the thirteen participants—all of whom were from Ontario—should not be considered a representative sample of collaboration beyond Ontario, Canada. However, the conceptual

framework and competency framework combined the results of the scoping review and interview study to provide a much broader source of informants, thus buttressing their transferability. Another notable limitation is that the competency framework has not been validated, as validation was beyond the scope of this thesis. Accordingly, its validity should be ascertained as a future direction before the competency framework is used.

Conclusion

OTs and teachers often collaborate in SBOT. However, such collaborations have proceeded with little in the way of a conceptual understanding of collaboration between these two professions and without the benefit of a competency framework to guide the acquisition of attitudes, skills, knowledge, behaviours, and beliefs needed for successful collaboration. This study both scoped the literature and interviewed stakeholders to allow for greater sensitivity to determine the tensions and facilitating factors in collaboration between OTs and teachers. This approach led to a conceptual framework and competency framework that can be used to better prepare these two professions to successfully collaborate with each other.

References

References marked with an asterisk were included in the scoping review.

*Agoratus, L. (1999). How to make inclusion work. *Exceptional Parent, 29*, 28–33.

*Ait-Hocine, N. (1990). A case for occupational therapy: Integrating children with mental and physical handicap into mainstream education. *British Journal of Occupational Therapy*, *53*(1), 19–23.

American Occupational Therapy Association. (2010). *Occupational therapy in school settings*. Retrieved from http://www.aota.org/Consumers/Professionals/WhatIsOT/CY/Fact-Sheets/School.aspx?FT=.pdf

Arksey, H., & O'Malley, L. (2005). Scoping studies: Towards a methodological framework. International Journal of Social Research Methodology, 8, 19–32.

Association of Canadian Occupational Therapy Regulatory Organization. (2011). *Essential competencies of practice for occupational therapists in Canada* (3rd ed.). Retrieved from http://www.acotro-acore.org/sites/default/files/uploads/essentialcompetenies3rded_webversion.pdf

Athey, T. R., & Orth, M. S. (1999). Emerging competency methods for the future. *Human Resource Management*, *38*(3), 215–225.

ATLAS.ti GmbH. (2016). *ATLAS.ti: The qualitative data analysis & research software*. Retrieved from http://www.atlasti.com/index.html

*Barnes, K. J., & Turner, K. D. (2001). Team collaborative practices between teachers and occupational therapists. *American Journal of Occupational Therapy*, *55*(1), 83–89.

Barr, H. (2002). *Interprofessional education: Today, yesterday and tomorrow*. Retrieved from:

http://citeseerx.ist.psu.edu/viewdoc/download;jsessionid=FE052930CA38448EAABBD33D35F5D360?doi=10.1.1.115.5717&rep=rep1&type=pdf

*Bayona, C. L., McDougall, J., Tucker, M. A., Nichols, M., & Mandich, A. (2006). School-based occupational therapy for children with fine motor difficulties: Evaluating functional outcomes and fidelity of services. *Physical & Occupational Therapy in Pediatrics, 26*(3), 89–110.

Bazyk, S. & Case-Smith, J. (2010). School-based occupational therapy. In J. Case-Smith & J. C. O'Brien (Eds.), *Occupational Therapy for Children* (6th Ed). (pp. 713–743). Maryland Heights, MI: Mosby Elsevier.

*Blackwell, A. L., & Dunn, W. (2016). Active ingredients for an embedded intervention within the early childhood classroom. *Journal Of Occupational Therapy, Schools & Early Intervention, 9*(2), 125–141.

*Bose, P., & Hinojosa, J. (2008). Reported experiences from occupational therapists interacting with teachers in inclusive early childhood classrooms. *American Journal of Occupational Therapy*, *62*(3), 289–297.

*Brandenburger-Shasby, S. (2005). School-based practice: Acquiring the knowledge and skills. *American Journal of Occupational Therapy*, *59*(1), 88–96.

British Columbia Ministry of Education. (2012). *Standards for the education, competence, & professional conduct of educators in British Columbia.* Retrieved from http://www.bcteacherregulation.ca/documents/AboutUs/Standards/edu_stds.pdf

Bryson, J. M., Crosby, B. C., & Stone, M. M. (2006). The design and implementation of cross-sector collaborations: Propositions from the literature. *Public Administration Review, 66*(s1), 44–55.

Calhoun, J. G., Dollett, L., Sinioris, M. E., Wainio, J. A., Butler, P. W., Griffith, J. R., & Warden, G. L. (2008). Development of an interprofessional competency model for healthcare leadership. *Journal of Healthcare Management*, *53*(6). Retrieved from http://www.biomedsearch.com/article/Development-interprofessional-competency-model-healthcare/190196468.html

*Campbell, W. N., Missiuna, C. A., Rivard, L. M., & Pollock, N. A. (2012). "Support for everyone": Experiences of occupational therapists delivering a new model of school-based service. *Canadian Journal of Occupational Therapy*, *79*(1), 51–59.

Canadian Association of Occupational Therapists. (2012a). *Occupational therapy – definition*. Retrieved from http://www.caot.ca/default.asp?pageid=1344

Canadian Association of Occupational Therapists. (2012b). *Profile of practice of occupational therapists in Canada*. Retrieved from http://www.caot.ca/pdfs/2012otprofile.pdf

Canadian Institute for Health Information. (2012). *Occupational therapists in Canada, 2011—National and jurisdictional highlights*. Retrieved from https://www.cihi.ca/en/ot2011_highlights_profiles_en.pdf

Canadian Interprofessional Health Collaborative (CIHC). (2007). *Interprofessional education & core competencies*. Retrieved from http://www.cihc.ca/files/publications/CIHC_IPE-LitReview_May07.pdf

Canadian Interprofessional Health Collaborative (CIHC). (2010). *A national interprofessional competency framework*. Retrieved from http://www.cihc.ca/files/CIHC_IPCompetencies_Feb1210.pdf

Canadian Interprofessional Health Collaborative (CIHC). (2012). *An inventory of quantitative*

tools measuring interprofessional education and collaborative practice outcomes. Retrieved from http://www.ipe.utoronto.ca/sites/default/files/CIHC_tools_report_Aug26%202012%20%281%29.pdf

Cane, J., O'Connor, D., & Michie, S. (2012). Validation of the theoretical domains framework for use in behaviour change and implementation research. *Implementation Science*, *7*(1), 37. doi:10.1186/1748-5908-7-37

Carpenter, J. (1995). Interprofessional education for medical and nursing students: Evaluation of a programme. *Medical Education*, *29*(4), 265–272.

Case-Smith, J., & Cable, J. (1996). Perceptions of occupational therapists regarding service delivery models in school-based practice. *The Occupational Therapy Journal of Research*, *16*(1), 23–44.

Cavanagh S. (1997) Content analysis: Concepts, methods and applications. *Nurse Researcher*, *4*, 5–16.

Centre for the Advancement of Interprofessional Education (CAIPE). (2012). *Defining IPE*. Retrieved from http://www.caipe.org.uk/

Charmaz, K. (2006). *Constructing Grounded Theory: A practical guide through qualitative analysis*. London, England: Sage.

Chircop, A., Bassett, R., & Taylor, E. (2015). Evidence on how to practice intersectoral collaboration for health equity: A scoping review. *Critical Public Health*, *25*(2), 178–191.

Coben, S. S., Thomas, C. C., Sattler, R. O., & Morsink, C. V. (1997). Meeting the challenge of consultation and collaboration: Developing interactive teams. *Journal of Learning Disabilities*, *30*, 427–432.

College of Early Childhood Educators & Ontario College of Teachers. (2015). Exploring interprofessional collaboration and ethical leadership. Retrieved from https://www.oct.ca/-/media/44E1925631514BABB1443B865C04D110.ashx

Concordia University Library (No Date). *Education databases.* Retrieved from https://www.concordia.ca/library/guides/education/databases.html

Cooke, R. (2017). 'Nowhere to turn': Teachers left alone to deal with special needs, fed up with system. *CBC Newfoundland*. Retrieved from http://www.cbc.ca/news/canada/newfoundland-labrador/inside-the-classroom-inclusive-education-not-working-1.3938053

*Copley, J., Turpin, M., Gordon, S., & McLaren, C. (2011). Development and evaluation of an occupational therapy program for refugee high school students. *Australian Occupational Therapy Journal*, *58*(4), 310–316.

Corbin, J. M., & Strauss, A. (1990). Grounded theory research: Procedures, canons, and evaluative criteria. *Qualitative Sociology, 13*(1), 3–21.

Corrigan, D. (2000). The changing role of schools and higher education institutions with respect to community-based interagency collaboration and interprofessional partnerships. *Peabody Journal of Education, 75*(3), 176–195.

Creswell, J. (1998). *Qualitative inquiry and research design: Choosing among five traditions.* Thousand Oaks, CA: Sage.

D'Amour, D., Ferrada-Videla, M., San Marin-Rodriguez, L., & Beaulieu, M. (2005). The conceptual basis for interprofessional collaboration: Core concepts and theoretical frameworks. *Journal of Interprofessional Care, Supplement 1*, 116–131.

Deloitte & Touche. (2010). *Review of school health support services: Final report.* Retrieved

from http://www.health.gov.on.ca/en/public/contact/ccac/docs/deloitte_shss_review_report.pdf

Dettmer, P. (2009). *Collaboration, consultation, and teamwork for students with special needs*. Upper Saddle River, NJ: Pearson.

Dewalt, K. M., & Dewalt, B. R. (2002). *Participant observation*. Walnut Creek, CA: AltaMira Press.

Elo, S. & Kyngas, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing*, *62*(1), 107–115.

*Fairbairn, M., & Davidson, I. (1993). Teachers' perceptions of the role and effectiveness of occupational therapists in schools. *Canadian Journal of Occupational Therapy*, *60*(4), 185–191.

Fleishman, E. A., Wetrogan, L. I., Uhlman, C. E., & Marshall-Mies, J. C. (1995). In N. G. Peterson, M. D. Mumford, W. C. Borman, P. R. Jeanneret, & E.A. Fleishman (Eds.), *Development of prototype occupational information network content model* (pp. 10.1-10.39). Salt Lake City, UT: Utah Department of Employment Security.

Freeth, D. (2001). Sustaining interprofessional collaboration. *Journal of Interprofessional Care*, *15*(1), 37–46.

Friend, M. (2000). Myths and misunderstandings about professional collaboration. *Remedial and Special Education*, *21*, 130–132, 160.

Friend, M. & Cook, L. (2000). *Interactions: Collaboration skills for school professionals*. New York: Longman.

Friend, M., & Cook, L. (2003). *Interactions: collaboration skills for professionals* (4th ed.). Boston MA: Allyn and Bacon.

Gallivan-Fenlon, A. (1994). Integrated transdisciplinary teams. *Teaching Exceptional Children*, *26*(3), 16–20.

Geertz, C. (1973). *The interpretation of cultures: Selected essays*. New York: Basic Books.

Gilbert, J. H. (2010). The status of interprofessional education in Canada. *Journal of Allied Health*, *39*(3), 216–223.

Graham, I. D., Logan, J., Harrison, M. B., Straus, S. E., Tetroe, J., Caswell, W., & Robinson, N. (2006). Lost in knowledge translation: Time for a map? *Journal of Continuing Education in the Health Professions*, *26*(1), 13–24.

*Graham, J., & Maze, M. K. (1997). The evolution of a partnership to meet the special needs of children. *British Journal of Occupational Therapy*, *60*(12), 521–524.

Hammick, M., Freeth, D., Koppel, I., Reeves, S., & Barr, H. (2007). A best evidence systematic review of interprofessional education: Best evidence medical evaluation review guide 9. *Medical Teacher*, *29*, 735–751.

Hoge, M. A., Tondora, J., & Marrelli, A. F. (2005). The fundamentals of workforce competency: Implications for behavioral health. *Administration and Policy in Mental Health and Mental Health Services Research*, *32*(5–6), 509–531.

*Homer, E. M., Bickerton, C., Hill, S., Parham, L., & Taylor, D. (2000). Development of an interdisciplinary dysphagia team in the public schools. *Language, Speech, and Hearing Services in Schools*, *31*(1), 62–75.

Horsburgh, M., Lamdin, R., & Williamson, E. (2001). Multiprofessional learning: The attitudes of medical, nursing and pharmacy students to shared learning. *Medical Education, 35*, 876–883.

Hutchinson, N. L. (2007). *Inclusion of exceptional learners in Canadian schools: A practical*

handbook for teachers (2nd ed.). Toronto, ON: Prentice Hall.

Hutchinson, N. L. (2014). *Inclusion of exceptional learners in Canadian schools: A practical handbook for teachers* (4th ed.). Toronto, ON: Pearson.

Hutton, E. (2008). 'Back to school'–piloting an occupational therapy service in mainstream schools in the UK. Reflective Practice, 9(4), 461–472.

*Hutton, E. (2009). Occupational therapy in mainstream primary schools: An evaluation of a pilot project. *British journal of occupational therapy*, *72*(7), 308–313.

Institute of Medicine. (2003). *Health professions education: A bridge to quality*. Washington, DC: The National Academies Press.

*Jackman, M., & Stagnitti, K. (2007). Fine motor difficulties: The need for advocating for the role of occupational therapy in schools. *Australian Occupational Therapy Journal*, *54*(3), 168–173.

*Kardos, M., & White, B. P. (2005). The role of the school-based occupational therapist in secondary education transition planning: A pilot survey study. *American Journal of Occupational Therapy*, *59*(2), 173–180.

Kemmis, B. L., & Dunn, W. (1996). Collaborative consultation: The efficacy of remedial and compensatory interventions in school contexts. *American Journal of Occupational Therapy*, *50*(9), 709–717.

Kennedy, S., & Stewart, H. (2011). Collaboration between occupational therapists and teachers: Definitions, implementation and efficacy. *Australian Occupational Therapy Journal*, *58*, 209–214.

*Kennedy, S., & Stewart, H. (2012). Collaboration with teachers: A survey of South Australian

occupational therapists' perceptions and experiences. *Australian Occupational Therapy Journal, 59,* 147–155.

*Kovic, S. (1996). Peer coaching to facilitate inclusion: A job-embedded staff development model. *Journal of Staff Development*, *17*(1), 28-31.

Lambert, S. D., & Loiselle, C. G. (2008). Combining individual interviews and focus groups to enhance data richness. *Journal of Advanced Nursing*, *62*(2), 228–237.

Lawson, H. A., & Sailor, W. (2000). Integrating services, collaborating, and developing connections with schools. *Focus on Exceptional Children*, *33*(2), 1–22.

Leggat, S. G. (2007). Effective healthcare teams require effective team members: Defining teamwork competencies. *BMC Health Services Research, 7*(1). doi: 10.1186/1472-6963-7-17

Levac, D., Colquhoun, H., & O'Brien, K. K. (2010). Scoping studies: Advancing the methodology. *Implementation Science*, *5*(69), 1–9.

*Lindeman, K. W., & Magiera, K. (2014). A co-teaching model: Committed professionals, high expectations, and the inclusive classroom. *Odyssey: New Directions In Deaf Education*, 15, 40–45.

Marrelli, A. F., Tondora, J., & Hoge, M. A. (2005). Strategies for developing competency models. *Administration and Policy in Mental Health and Mental Health Services Research*, *32*(5–6), 533–561.

Mirabile, R. J. (1997). Everything you wanted to know about competency modeling. *Training & Development, 51*(8), 73–78.

*Missiuna, C., Pollock, N., Campbell, W. N., Bennett, S., Hecimovich, C., Gaines, R., ... &

Molinaro, E. (2012a). Use of the Medical Research Council Framework to develop a complex intervention in pediatric occupational therapy: Assessing feasibility. *Research in Developmental Disabilities, 33*(5), 1443–1452.

Missiuna, C. A., Pollock, N. A., Levac, D. E., Campbell, W. N., Whalen, S. D. S., Bennett, S. M., ... & Russell, D. J. (2012b). Partnering for change: An innovative school-based occupational therapy service delivery model for children with developmental coordination disorder. *Canadian Journal of Occupational Therapy, 79*(1), 41–50.

Morse, J. (2003). Principles of mixed methods and multimethod design. In A. Tashakkori & C. Teddle (Eds.), *Handbook of mixed methods in social and behavioral research* (189–208). Thousand Oaks, CA: Sage.

Mostert, M. P. (1996). Interprofessional collaboration in schools: Benefits and barriers in practice. *Preventing School Failure: Alternative Education for Children and Youth*, *40*(3), 135–138.

*Mukherjee, S., Lightfoot, J., & Sloper, P. (2002). Communicating about pupils in mainstream school with special health needs: The NHS perspective. *Child: Care, Health and Development*, *28*(1), 21–27.

Niehues, A. N., Bundy, A. C., Mattingly, C. F., & Lawlor, M. C. (1991). Making a difference: Occupational therapy in the public schools. *The Occupational Therapy Journal of Research*, *11*(4), 195–212.

Nirje, B. (1969). The normalization principle and its human management implications. In R. Kugel, & W. Wolfensberger (Eds.), *Changing patterns in residential services for the mentally retarded* (pp. 179–195). Washington, DC: President's Committee on Mental Retardation.

*Nochajski, S. M. (2001). Collaboration between team members in inclusive educational settings. *Occupational Therapy in Health Care, 15*(3-4), 101–112.

Office of Interprofessional Education & Practice. (2014). *Collaboration in Action*. Retrieved from http://healthsci.queensu.ca/assets/oipep/CIA/CIA-Overview-2014.pdf

Office of Interprofessional Education & Practice. (2015). *IPE Framework for Queen's Faculty of Health Science*. Retrieved from http://healthsci.queensu.ca/education/oipep/ipe_framework_for_fhs

Ontario College of Teachers. (2010). *Foundations of Professional Practice*. Retrieved from http://www.oct.ca/~/media/PDF/Foundations%20of%20Professional%20Practice/Foundation_e.ashx

Ontario College of Teachers. (2015). *Membership demographics*. Retrieved from http://reports.oct.ca/2015/en/statistics/membership-demographics.html

Ontario College of Teachers. (2016). *The professional learning framework for the teaching profession*. Retrieved from https://www.oct.ca/-/media/PDF/Professional%20Learning%20Framework/framework_e.pdf

Ontario Ministry of Children and Youth Services. (2016). *Ontario's special needs strategy*. Retrieved from http://www.children.gov.on.ca/htdocs/English/professionals/specialneeds/strategy.aspx

Ontario Ministry of Education. (2012). *Policy/Program Memorandum No. 81*. Retrieved from http://www.edu.gov.on.ca/extra/eng/ppm/81.html

Ontario Ministry of Education. (2016). *An introduction to special education in Ontario*. Retrieved from http://www.edu.gov.on.ca/eng/general/elemsec/speced/ontario.html

Ontario Society of Occupational Therapists. (2014). *Succeed at school*. Retrieved from:

http://otontario.ca/osot/index.php/succeed-at-school/

Ontario Society of Occupational Therapists. (2015). *Occupational therapy in the Ontario school system: Effective practices that fit with the Special Needs Strategy*. Retrieved from: https://www.osot.on.ca/OSOT/Practice_Resources/Sector_Resources/Paediatrics_School-Based/OSOT/Practice_Resources_Pages/Sector_Resource_Pages/Paediatrics_School-Based.aspx?hkey=d280ecbc-0912-410e-8902-ed0cbb28065a

Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage.

*Patton, S., Hutton, E., & MacCobb, S. (2015). Curriculum differentiation for handwriting and occupational therapy/teacher partnership: Collaboration or conflict? *Irish Educational Studies*, *34*(2), 107–124.

Paul, S. & Peterson, C. (2001). IPC: Issues for practice and research. *Occupational Therapy in Health Care*, *15*, 1–12.

Peyser, A., Gerard, F. M., & Roegiers, X. (2006). Implementing a pedagogy of integration: some thoughts based on a textbook elaboration experience in Vietnam, *Planning and Changing*, *37*(1/2), 37–55.

Potter, J. (2010). Mapping the literature of occupational therapy: An update. *Journal of the Medical Librarian Association*, 98, 235–242.

*Priest, N., & May, E. (2001). Laptop computers and children with disabilities: Factors influencing success. *Australian Occupational Therapy Journal*, *48*(1), 11–23.

*Prigg, A. (2002). Experiences and perceived roles of occupational therapists working with children with special learning needs during transition to school: A pilot study. *Australian Occupational Therapy Journal*, *49*(2), 100–111.

ProQuest. (2016). *ERIC: About*. Retrieved from http://proquest.libguides.com/eric

Public Health Agency of Canada. (2007). *Crossing sectors: Experiences in intersectoral action, public policy and health*. Retrieved from http://www.phac-aspc.gc.ca/publicat/2007/cro-sec/3inter-eng.php

Radomski, M. V., & Latham, C. A. T. (Eds.). (2008). *Occupational therapy for physical dysfunction* (6th ed). Baltimore, MD: Lippincott Williams & Wilkins.

Ratzon, N., Lahav, O., Cohen-Hamsi, S., Metzger, Y., Efraim, D., & Bart, O. (2009). Comparing different short-term service delivery methods of visual-motor treatment for first grade students in mainstream schools. *Research in Developmental Disabilities*, *30*(6), 1168–1176.

*Reid, D., Chiu, T., Sinclair, G., Wehrmann, S., & Naseer, Z. (2006). Outcomes of an occupational therapy school-based consultation service for students with fine motor difficulties. *Canadian Journal of Occupational Therapy*, *73*(4), 215–224.

*Rens, L., & Joosten, A. (2014). Investigating the experiences in a school-based occupational therapy program to inform community-based paediatric occupational therapy practice. *Australian occupational therapy journal*, *61*(3), 148–158.

Rodger, S., Clark, M., Banks, R., O'Brien, M., & Martinez, K. (2009). A comparison of international occupational therapy competencies: Implications for Australian standards in the new millennium. *Australian Occupational Therapy Journal*, *56*(6), 372–383.

Rodger, S. & Ziviani, J. (Eds.). (2006). *Occupational therapy with children*: *Understanding children's occupations and enabling participation*. Oxford: Blackwell Publishing.

Romanow, R. J. (2002). *Building on values: The future of health care in Canada: Final report*. Saskatoon, Canada: Commission on the Future of Health Care.

*Ross-Watt, F. (2005). Inclusion in the early years: From rhetoric to reality. *Child Care in Practice, 11*(2), 103–118.

Royal College of Physicians and Surgeons of Canada. (2014). *Competency by design: Reshaping Canadian medical education*. Retrieved from: http://www.royalcollege.ca/rcsite/documents/educational-strategy-accreditation/royal-college-competency-by-design-ebook-e.pdf

Saldaña, J. (2015). *The coding manual for qualitative researchers*. London, England: Sage.

San Martin-Rodriguez, L., Beaulieu M., D'Amour, D., & Ferrada-Videla, M. (2005). The determinants of successful collaboration: A review of theoretical and empirical studies. *Journal of Interprofessional Care, 19* (supplement 1),132–147.

Sandler, A. G. (1997). Physical and occupational therapy services: Use of a consultative therapy model in the schools. *Preventing School Failure: Alternative Education for Children and Youth*, *41*(4), 164–167.

Santos A. R., De La Libra, S. (2016). Occupational therapy and collaborative consultation: A narrative review of the literature. *Revista de Terapia Ocupacional da Universidade de São Paulo*, *27*(1): 94–99.

Scimago Lab. (2016). *Scimago journal and country rank*. Retrieved from http://www.scimagojr.com/journalrank.php?category=3609&year=2015

Shippmann, J. S., Ash, R. A., Batjtsta, M., Carr, L., Eyde, L. D., Hesketh, B., ... & Sanchez, J. I. (2000). The practice of competency modeling. *Personnel Psychology*, *53*(3), 703–740.

*Silverman, F. L., & Millspaugh, R. (2006). Physical proximity of occupational therapy and

learning support instruction: How room sharing can promote collaboration for professionals and success for students. *Teaching Exceptional Children Plus*, *2*(4). Retrieved from http://escholarship.bc.edu/education/tecplus/vol2/iss4/art2

Spencer, K. C., Turkett, A., Vaughan, R., & Koenig, S. (2006). School-based practice patterns: A survey of occupational therapists in Colorado. *American Journal of Occupational Therapy, 60,* 81–91.

Straus, S., Tetroe, J., & Graham, I. D. (Eds.). (2013). *Knowledge translation in health care: Moving from evidence to practice* (2nd ed.). Hoboken, NJ: Wiley-Blackwell.

Suter, E., Arndt, J., Arthur, N., Parboosingh, J., Taylor, E., & Deutschlander, S. (2009). Role understanding and effective communication as core competencies for collaborative practice. *Journal of Interprofessional Care*, *23*(1), 41–51.

Swan, W. W., & Sirvis, B. (1992). The CEC common core of knowledge and skills essential for all beginning special education teachers. Teaching Exceptional Children, 25(1), 16–20.

Szasz, G. (1969). Interprofessional education in the health sciences: A project conducted at the University of British Columbia. *Milbank Quarterly*, *67,* 449–475.

Thomas, G. (1992). *Effective classroom teamwork: Support or intrusion?* London, England: Routledge.

Thomazet, S. (2009). From integration to inclusive education: Does changing the terms improve practice? *International Journal of Inclusive Education*, *13*(6), 553–563.

Tooher, R., Collins, J., Braunack-Mayer, A., Burgess, T., Skinner, S. R., O'Keefe, M., ... & Marshall, H. S. (2017). Intersectoral collaboration to implement school-based health programmes: Australian perspectives. *Health Promotion International*, *32,* 312–321.

Venegas, B. C. & Thill, K. (2015). Towards a new competency model for HRM. *International*

Journal of Arts & Sciences, *8*(5), 597–622.

Verma, S., Paterson, M., & Medves, J. (2006). Core competencies for health care professionals: What medicine, nursing, occupational therapy, and physiotherapy share. *Journal of Allied Health*, *35*(2), 109–115.

Villeneuve, M. (2009). A critical examination of school-based occupational therapy collaborative consultation. *Canadian Journal of Occupational Therapy*, *76*, 206–218.

Villeneuve, M., & Hutchinson, N. (2012). Enabling outcomes for students with developmental disabilities through collaborative consultation. *The Qualitative Report*, *17*(97), 1–29.

*Villeneuve, M., & Shulha, L. M. (2012). Learning together for effective collaboration in school-based occupational therapy practice. *Canadian Journal of Occupational Therapy*, *79*(5), 293–302.

Walsh, M. E., Brabeck, M. M., & Howard, K. A. (1999). Interprofessional collaboration in children's services: Toward a theoretical framework. *Children's Services: Social Policy, Research, and Practice*, *2*(4), 183–208.

*Wehrmann, S., Chiu, T., Reid, D., & Sinclair, G. (2006). Evaluation of occupational therapy school-based consultation service for students with fine motor difficulties. *Canadian Journal of Occupational Therapy*, *73*(4), 225–235.

Wells, N., Johnson, R., & Salyer, S. (1998). Interdisciplinary collaboration. *Clinical Nurse Specialist, 12*(4), 161–168.

Whalen, S. S. (2002). How occupational therapy makes a difference in the school system: A summary of the literature. *Occupational Therapy Now*, *4*(3), 15–18.

Winter, E. C. (2006). Preparing new teachers for inclusive schools and classrooms. *Support for*

Learning, *21*(2), 85–91.

Winton, P., McCollum, J., & Catlett, C. (1997). *Reforming personnel preparation in early intervention.* Baltimore, MD: Brookes.

Winzer, M. (2006). Confronting difference: An excursion through the history of special education. *The Sage handbook of special education*, 21–33.

Winzer, M. (2008). *Children with exceptionalities in Canadian classrooms* (8th ed.). Toronto, ON: Pearson.

World Federation of Occupational Therapy. (2016). *Definition of occupational therapy*. Retrieved from http://www.wfot.org/AboutUs/AboutOccupationalTherapy/DefinitionofOccupationalTherapy.aspx

World Health Organization. (1997). Intersectoral action for health: A cornerstone for health-*for-all in the twenty-first century*. Retrieved from http://www.cpha.ca/uploads/progs/infra/intersectoral.pdf

World Health Organization. (2011). Intersectoral action on health: A path for policy-makers to implement effective and sustainable action on health. Retrieved from: http://www.who.int/kobe_centre/publications/ISA-booklet_WKC-AUG2011.pdf

Zwarenstein, M., Goldman, J., & Reeves, S. (2009). Interprofessional collaboration: Effects of practice-based interventions on professional practice and healthcare outcomes. *Cochrane Database of Systematic Reviews*, *3*, i–29.

Appendix A

August 08, 2014

Mr. Jimmy Wintle
Ph.D. Candidate
School of Rehabilitation Therapy
Queen's University
Louise D. Acton Building
Kingston, On, K7L 3N6

GREB Ref #: GRHBS-003-14; Romeo # 6013326
Title: "GRHBS-003-14 Designing and evaluating a competency-based interprofessional education module for pre-service teachers and pre-service occupational therapists"

Dear Mr. Wintle:

The General Research Ethics Board (GREB), by means of a delegated board review, has cleared your proposal entitled **"GRHBS-003-14 Designing and evaluating a competency-based interprofessional education module for pre-service teachers and pre-service occupational therapists"** for ethical compliance with the Tri-Council Guidelines (TCPS) and Queen's ethics policies. In accordance with the Tri-Council Guidelines (article D.1.6) and Senate Terms of Reference (article G), your project has been cleared for one year. At the end of each year, the GREB will ask if your project has been completed and if not, what changes have occurred or will occur in the next year.

You are reminded of your obligation to advise the GREB, with a copy to your unit REB, of any adverse event(s) that occur during this one year period (access this form at https://eservices.queensu.ca/romeo_researcher/ and click Events - GREB Adverse Event Report). An adverse event includes, but is not limited to, a complaint, a change or unexpected event that alters the level of risk for the researcher or participants or situation that requires a substantial change in approach to a participant(s). You are also advised that all adverse events must be reported to the GREB within 48 hours.

You are also reminded that all changes that might affect human participants must be cleared by the GREB. For example you must report changes to the level of risk, applicant characteristics, and implementation of new procedures. To make an amendment, access the application at https://eservices.queensu.ca/romeo_researcher/ and click Events - GREB Amendment to Approved Study Form. These changes will automatically be sent to the Ethics Coordinator, Gail Irving, at the Office of Research Services or irvingg@queensu.ca for further review and clearance by the GREB or GREB Chair.

On behalf of the General Research Ethics Board, I wish you continued success in your research.

Yours sincerely,

Joan Stevenson, Ph.D.
Chair
General Research Ethics Board

c: Dr. Terry Krupa, Faculty Supervisor

Appendix B

ALGONQUIN AND LAKESHORE CATHOLIC DISTRICT SCHOOL BOARD

Office of the Superintendent of School Effectiveness

March 25, 2015

Mr. James Wintle
School of Rehabilitation Therapy,
Queen's University
3jjw@queensu.ca

Dear Mr. Wintle,

Thank you for your interest in having the Algonquin and Lakeshore Catholic District School Board participate in "*Designing and evaluating competency-based interprofessional education module for pre-service teachers and pre-service occupational therapists.*" We have reviewed your request for participation in the research and are pleased to inform you that your proposal meets the criteria for conducting research in Algonquin and Lakeshore Catholic District School Board.

You have been approved to begin your research in the school years 2014-2015. Participation will be at the discretion of school principals and voluntary for any teachers who wish to participate.

In aligning with Board Policy, researchers will not be allowed access to students or school staff in **May, June or September** because of the large number of activities in schools.

I wish you every success with your research. We look forward to receiving the results of your study. Please feel free to contact me with any questions that you might have.

Sincerely,

David P. Giroux

David P. Giroux
Superintendent of School Effectiveness
DPG/bc

cc: J. DiRocco, Director of Education
T. Kennedy, Superintendent of School Effectiveness
K. Shannon, Superintendent of School Effectiveness
E. Walker, Assistant to the Director

151 Dairy Avenue
Napanee, Ontario
K7R 4B2

Telephone: (613) 354-2255
Automated Attendant: (613) 354-6257
Toll Free Telephone: 1-800-581-1116
General Fax: (613) 354-4772

http://www.alcdsb.on.ca
giroux@alcdsb.on.ca

Appendix C

[redacted] SCHOOL BOARD

February 10, 2015

Mr. James Wintle
Ph.D. Candidate
School of Rehabilitation Therapy
Queen's University
Louise D. Acton Building
Kingston, ON
K7L 3N6

Dear Mr. Wintle;

This letter will acknowledge receipt of your research proposal entitled, "Designing and evaluating a competency-based interprofessional education module for pre-service teachers and pre-service occupational therapists".

You have submitted the following components required as part of the [redacted] School Board Administrative Procedure regarding External Research;

- written commitment to ensure anonymity of Board, schools, staff and students
- abstract of the research proposal
- copies of questionnaires, schedules
- parental/teacher consent form
- official ethics review

May I emphasize that it is understood that for all research projects, the name of the [redacted] School Board, the name of the school, participants, teachers and students would not be identified in your final report and participants would have a right to opt out of this project at any time.

Approval is granted for you to contact [redacted], Principal of Educational Services. Following the completion of your project, a copy of your report is required to be submitted to the [redacted] School Board.

Sincerely,

[redacted]
Superintendent of Education

cc: *Principals - Elementary*
Senior Staff

[redacted]

Appendix D

Letter of Information for Teachers

Researcher: James Wintle, School of Rehabilitation Therapy, Queen's University
Project Title: *Designing and evaluating a competency-based interprofessional education module for pre-service teachers and pre-service occupational therapists.*

Dear Teacher,

As part of my PhD thesis at Queen's University, I am conducting a study of the views teachers, occupational therapists, and parents on what is required for positive collaboration between teachers and occupational therapists. This study will provide information that will be used to create a competency-based framework for collaboration between teachers and occupational therapists.

I would like to invite you to participate in an interview about your experiences collaborating with occupational therapists, what you think is necessary for successful collaboration, and what you consider to be barriers to successful collaboration. An average interview may take 30-60 minutes. You can choose an interview location and time that is convenient for you. There will be no deception of any kind throughout the interview or study and there are no known risks to participants. No compensation will be provided to participants.

Interviews will be digitally audio recorded and transcribed. These recordings and transcripts will be used confidentially; that is, they will not be used in any way that may identify you as an individual. In order to protect your confidentiality to the extent possible, a pseudonym will be used in place of your real name. This pseudonym will be used in transcriptions of your interviews and in any written use of the interview material. Data from these interviews will be seen by my supervisor and myself, and will be stored in a secure location. You may review interview transcripts to ensure accuracy. Data may be published in academic journals and presented in conferences. Any presentation or publication of the data will not breach your confidentiality.

You are not obliged to answer any objectionable or discomforting question. You have the right to withdraw from participating in the interviews without any reason. If you choose to withdraw, you may request the removal of all or part of your interview data up to 60 days post-interview. To withdraw, please contact me or my supervisor at the number below.

If you agree to participate, please contact me using my email or phone number provided below. I will return your email or call to make arrangements for a time and location that is convenient to you for the purpose of interviewing.

This study has been granted clearance according to the recommended principles of Canadian ethics guidelines, and Queen's policies. For questions, concerns or complaints about the research ethics of this study, you may contact the chair of the General Research Ethics Board, Dr. Joan Stevenson at 613-533-6000, ext. 74025 (chair.greb@queensu.ca).

Thank you for your consideration. If you have any questions about this study, feel free to contact me or my supervisor, Dr. Terry Krupa, at:

James Wintle, OT Reg. (Ont)
PhD Candidate
School of Rehab Therapy
Queen's University
E-mail: **3jjw@queensu.ca**
Telephone: 613-888-8989

Dr. Terry Krupa, OT Reg. (Ont)
Professor
School of Rehab Therapy
Queen's University
E-mail: krupat@queensu.ca
Telephone: 613-533-6236

Appendix E

Letter of Information for OTs

Researcher: James Wintle, School of Rehabilitation Therapy, Queen's University
Project Title: *Designing and evaluating a competency-based interprofessional education module for pre-service teachers and pre-service occupational therapists.*

Dear Occupational Therapist,

As part of my PhD thesis at Queen's University, I am conducting a study of the views OTs, teachers, and parents on what is required for positive collaboration between teachers and occupational therapists. This study will provide information will be used to create a competency-based framework for collaboration between teachers and occupational therapists.

I would like to invite you to participate in an interview about your experiences collaborating with school teachers and what you think is necessary for successful collaboration and what you consider to be barriers to successful collaboration. An average interview may take 40-60 minutes. You can choose an interview location and time that is convenient for you. There will be no deception of any kind throughout the interview or study and there are no known risks to participants. No compensation will be provided to participants.

Interviews will by digitally audio recorded and transcribed. These recordings and transcripts will be used confidentially; that is, they will not be used in any way that may identify you as an individual. In order to protect your confidentiality to the extent possible, a pseudonym will be used in place of your real name. This pseudonym will be used in transcriptions of your interviews and in any written use of the interview material. Data from these interviews will be seen by my supervisor and myself, and will be stored in a secure location. You may review interview transcripts to ensure accuracy. Data may be published in academic journals and presented in conferences. Any presentation or publication of the data will not breach your confidentiality.

You are not obliged to answer any objectionable or discomforting question. You have the right to withdraw from participating in the interviews without any reason. If you choose to withdraw, you may request the removal of all or part of your interview data up to 60 days post-interview. To withdraw, please contact me or my supervisor at the number below.

If you agree to this, please sign the consent form. If you decide to participate, I will contact you in the near future to make arrangements for a time and location that is convenient to you for the purpose of interviewing.

This study has been granted clearance according to the recommended principles of Canadian ethics guidelines, and Queen's policies. For questions, concerns or complaints about the research ethics of this study, you may contact the chair of the General Research Ethics Board, Dr. Joan Stevenson at 613-533-6000, ext. 74025 (chair.greb@queensu.ca).

Thank you for your consideration. If you have any questions about this study, feel free to contact me or my supervisor, Dr. Terry Krupa, at:

James Wintle, OT Reg (Ont)
PhD Candidate
School of Rehab Therapy
Queen's University
E-mail: 3jjw@queensu.ca
Telephone: 613-888-8989

Dr. Terry Krupa, OT Reg (Ont)
Professor
School of Rehab Therapy
Queen's University
E-mail: krupat@queensu.ca
Telephone: 613-533-6236

Appendix F

Letter of Information for Parents

Researcher: James Wintle, School of Rehabilitation Therapy, Queen's University
Project Title: *Designing and evaluating a competency-based interprofessional education module for pre-service teachers and pre-service occupational therapists.*

Dear Parent,

As part of my PhD thesis at Queen's University, I am conducting a study of the views parents, teachers, and occupational therapists on what is required for positive collaboration between teachers and occupational therapists. This study will provide information that will be used to help improve training for collaboration between teachers and occupational therapists.

I would like to invite you to participate in an interview about the experiences of your child receiving occupational therapy in school. An average interview may take 30-60 minutes. The interview will focus on the collaboration between school teachers and occupational therapists and what you think is necessary for successful collaboration. You can choose an interview location and time that is convenient for you. There will be no deception of any kind throughout the interview and there are no known risks to participants. No compensation will be provided to participants.

Interviews will be digitally audio recorded and transcribed. These recordings and transcripts will be used confidentially; that is, they will not be used in any way that may identify you as an individual. In order to protect your confidentiality to the extent possible, a pseudonym will be used in place of your real name. This pseudonym will be used in transcriptions of your interviews and in any written use of the interview material. Data from these interviews will be seen by my supervisor and myself, and will be stored in a secure location. You may review interview transcripts to ensure accuracy. Data may be published in academic journals and presented in conferences. Any presentation or publication of the data will not breach your confidentiality.

You do not have to answer any question you find uncomfortable. You have the right to withdraw, at any time, from participating in the interview. If you choose to withdraw, you may request the removal of all or part of your interview data up to 60 days post-interview. To withdraw, please contact me or my supervisor at the number below.

If you agree to participate, please contact me using my email or phone number provided below. I will return your email or call to make arrangements for a time and location that is convenient to you for the purpose of interviewing.

This study has been granted clearance according to the recommended principles of Canadian ethics guidelines, and Queen's policies. For questions, concerns or complaints about the research ethics of this study, you may contact the chair of the General Research Ethics Board, Dr. Joan Stevenson at 613-533-6000, ext. 74025 (chair.greb@queensu.ca).

Thank you for your consideration. If you have any questions about this study, feel free to contact me or my supervisor, Dr. Terry Krupa, at:

James Wintle, OT Reg (Ont)
PhD Candidate
School of Rehab Therapy
Queen's University
E-mail: 3jjw@queensu.ca
Telephone: 613-888-8989

Dr. Terry Krupa, OT Reg (Ont)
Professor
School of Rehab Therapy
Queen's University
E-mail: krupat@queensu.ca
Telephone: 613-533-6236

Appendix G

Letter of Consent

Researcher: James Wintle, School of Rehabilitation Therapy, Queen's University
Project Title: *Designing and evaluating a competency-based interprofessional education module for pre-service teachers and pre-service occupational therapists.*

Please sign one copy of this Consent Form and return to the researcher. Retain the second copy for your records.

I have read and retained a copy of the letter of information concerning *Designing and evaluating a competency-based interprofessional education module for pre-service teachers and pre-service occupational therapists* and all my questions have been sufficiently answered. I am aware that the purpose of this study is to determine the necessary competencies for collaboration between teachers and occupational therapists. I am aware that my involvement would consist of participating in an interview with the researcher. I am aware that the interview will last approximately 40-60 minutes. I have been informed that all interviews will be digitally recorded. I am aware that no compensation is offered for participation.

I have been notified that participation is voluntary and that I may withdraw from the study and I may request the removal of all or part of my data up to 60 days post-interview, without any consequences to myself. I have also been informed of the steps that will be taken to protect confidentiality to the extent possible of all information. This includes use of a pseudonym on all documentation, reviewing the information with the researcher and keeping the data in a secure location. I am aware that my confidentiality will be protected in any presentation or publication of the data.

I understand that, upon request, I may have a full description of the results of the study after its completion.

I understand that the researcher intends to publish the findings of the study.

I am aware that if I have any questions about this project, I can contact James Wintle at Queen's University, Faculty of Education at 613-888-8989 or by email at 3jjw@queensu.ca, or Dr. Terry Krupa at 613-533-6236. For questions, concerns or complaints about the research ethics of this study I can contact the Chair of the Queen's University General Research Ethics Board, Dr. Joan Stevenson, 613-533-6000, ext. 74025, email: chair.greb@queensu.ca

I have read and understand this consent form and I agree to participate in this study.

Name: _____

Date: _____

Signature: _____

By initialling this statement below,

_____ I am granting permission for the researcher to use a digital audio recorder

Appendix H

Sample Interview Questions

Preface: – competencies are based on knowledge, skills, attitudes, and behaviors

Interviewee Parent = P Teacher = T OT = OT	Questions (may require slight rephrasing depending on interviewee)
P/T/OT	What does it mean to collaborate with a teacher/occupational therapist?
P/T/OT	In your opinion, what would ideal collaboration look like between an OT and PT?
P/T/OT	In your experience, what does collaboration typically look like?
P/T/OT	In your experience, what does poor collaboration typically look like?
T/OT	Can you describe a time you collaborated with a teacher/OT that was a positive experience? What made it stand out? What contributed to that positive experience?
T/OT	Can you describe a challenging experience you had collaborating with a teacher/OT? What made collaboration difficult?
T/OT	What knowledge would you say is essential for a member of your profession to collaborate with a teacher/OT? What knowledge would you say is essential for a teacher/OT to collaborate with a member of your profession?
T/OT	What behaviours would you say are essential for a member of your profession to collaborate with an OT/teacher? What knowledge would you say is essential for a teacher/OT to collaborate with a member of your profession?
T/OT	What attitudes would you say are essential for a member of your profession to collaborate with an OT/teacher? What attitudes would you say are essential for a teacher/OT to collaborate with a member of your profession?
T/OT	What skills would you say are essential for a member of your profession to collaborate with a teacher/OT? What skills would you say are essential for a teacher/OT to collaborate with a member of your profession?

T/OT	What kinds of experiences or resources have been helpful in developing your ability to collaborate with teachers/OTs?
P/T/OT	If you could add something to the training of OTs/teachers to help them be better at collaborating, what would it be?
P/T/OT	What are the barriers to collaborating?
P	Can you tell me about a positive experience for your child that came about from a teacher and OT collaborating? What made it positive?
P	Can you tell me about an experience that could have been better? What would have made it better?
P	What skills or knowledge do you think teachers need to have to collaborate with OTs?
P	What skills or knowledge do you think OTs need to have to collaborate with teachers?

Appendix I

Competency Framework for Collaboration Between OTs and Teachers

Attitude - Open to Collaboration

Definition	The professional is willing to collaborate with their counterpart	
Descriptors	• The professional holds a positive view of their counterpart • The teacher is open to having a therapist in the classroom • The professional is open to trying new things as part of the recommendations for the student	
Low Proficiency	Moderate Proficiency	High Proficiency
The professional does not think highly of their counterpart or their counterpart's profession.	The professional holds their counterpart and their counterpart's profession in high regard.	The professional holds their counterpart and their counterpart's profession in high regard and exhibits this through words and actions, such as seeking advice.
The teacher is against the OT being present in the classroom during class time.	The teacher permits the OT to observe the class.	The teacher welcomes the OT into the class and incorporates the OT as a member of the class community, when appropriate.

The professional is resistant to incorporating things they are unfamiliar with into recommendations.	The professional is willing to incorporate things they are unfamiliar with into recommendations.	The professional is willing to incorporate things they are unfamiliar with into recommendations and ensures they become familiar with these things (e.g., technology, therapeutic techniques, etc.) before employing them.

Attitude – Motivated to Collaborate

Definition	The professional is motivated to participate in the collaboration	
Descriptors	• The professional is keen to collaborate • The professional is invested in the collaboration	
Low Proficiency	Moderate Proficiency	High Proficiency
The professional does not set aside time in their schedule to meet with their counterpart.	The professional sets aside time in their schedule to meet with their counterpart.	The professional sets aside time in their schedule to meet with their counterpart and has prepared questions to ask their counterpart.
The professional does not follow through on the agreed upon recommendations.	The professional follows through on the agreed upon recommendations.	The professional follows through on the agreed upon recommendations and provides feedback on the progress of the recommendations to their counterpart.
The professional does not attempt to get to know the student.	The professional attempts to get to know the student.	The professional attempts to get to know the student and attempts to tailor recommendations based on what is meaningful to the student.

Attitude – Persistence

Definition	The professional remains committed to the collaboration, despite setbacks.	
Descriptors	• The professional stays positive, despite setbacks • The professional stays positive, despite system-level difficulties • The professional is persistent	
Low Proficiency	Moderate Proficiency	High Proficiency
The professional adopts a negative attitude when the student does not demonstrate progress toward goals.	The professional maintains a positive attitude when the student does not demonstrate progress toward goals.	The professional maintains a positive attitude when the student does not demonstrate progress toward goals, and encourages others (their counterpart, the student, parents, etc.) to remain positive, as well.
The professional adopts a negative attitude in the face of system-level difficulties (lack of funding, lack of equipment, lack of space to work, etc).	The professional maintains a positive attitude in the face of system-level difficulties.	The professional maintains a positive attitude in the face of system-level difficulties and advocates for systemic changes to address difficulties.

The professional gives up on the collaboration when the student does not successfully meet targets or goals.	The professional persists with the recommendations, despite setbacks.	The professional focuses on the student's sucesses and adapts recommendations to capitalize on the student's strengths.

Skills – Time Management

Definition	The professional exercises control over their time to maximize productivity	
Descriptors	• The professional uses time efficiently • The teacher prioritizes their time to include occupational therapy • The professional fulfills their additional responsibilities	
Low Proficiency	Moderate Proficiency	High Proficiency
The OT does not follow a routine schedule.	The OT follows a consistent schedule so that the teacher can schedule their time accordingly.	The OT follows a consistent schedule so that the teacher can schedule their time accordingly, and groups school visits to reduce travel time between cases to maximize time collaborating.
The teacher does not make occupational therapy a priority.	The teacher makes occupational therapy a priority by scheduling time to collaborate with the OT.	The teacher makes occupational therapy a continuing priority by scheduling time to collaborate with the OT and to carry out recommendations.

The professional does not schedule time to complete paper work or other requirements related to the case.	The professional schedules time for required paper work and other responsibilities related to the case.	The professional schedules time for responsibilities related to the case and for reading reports related to the student (IEPs, assessment reports, etc.).

Skills – Teaching the Other Professional

Definition	The professional facilitates the learning of their counterpart in the collaboration.	
Descriptors	• The OT demonstrates therapeutic techniques for the teacher to use with the student • The professional explains their role in SBOT to their counterpart	
Low Proficiency	Moderate Proficiency	High Proficiency
The OT recommends therapeutic techniques to the teacher without demonstration of proper performance of the techniques.	The OT demonstrates proper performance of recommended therapeutic techniques.	The OT demonstrates proper performance of recommended therapeutic techniques, using grading when appropriate. The OT checks with the teacher for understanding.
The professional does not explain their own role and responsibilities in SBOT.	The professional explains their role in SBOT, including scope of practice and frames of reference.	The professional explains their role in SBOT, including scope of practice and frames of reference, such as when it is appropriate to make referrals for SBOT or how curriculum is evaluated.

Skills – Organizational Skills

Definition	The professional is organized, despite the demands placed on them.	
Descriptors	• The teacher keeps track of who is receiving SBOT services • The OT manages their caseload and is prepared for each school visit	
Low Proficiency	Moderate Proficiency	High Proficiency
The teacher is unsure who is receiving therapy and who has been discharged from therapy.	The teacher knows who is receiving therapy and who has been discharged.	The teacher knows who is receiving therapy and who has been discharged and records this for future reference and shares this information with other members of the student's Identification, Placement, and Review Committee.

The professional is not adequately prepared for the collaboration (e.g., has not reviewed case notes).	The professional keeps and reviews simple notes on the case.	The professional keeps detailed notes of what occured when meeting their counterpart and any resources required for subsequent meetings, and reviews these notes prior to subsequent meetings.

Skills – People Skills

Definition	The professional is able to interact with others comfortably and productively	
Descriptors	• The professional can gauge the mood of their counterpart • The professional can work through differences of opinion	
Low Proficiency	Moderate Proficiency	High Proficiency
The professional does not guage the mood of their counterpart.	The professional guages the mood of their counterpart.	The professional guages and actively responds to the mood of their counterpart (e.g., acts to make the counterpart feel more at ease, etc.)
The professional is unable to work through a difference of opinion with their counterpart.	The professional is able to negotiate a solution with their counterpart when differences of opinion arise.	The professional is able to negotiate a solution with their counterpart when differences of opinion arise and establishes mechanisms for resolving differences of opinion.

Skills – Ability to Respond to an Evolving Context

Definition	The professional responds appropriately when aspects of the collaboration changes or evolves	
Descriptors	• The professional adapts their approach to fit changing circumstances • The professional synthesizes incoming information into their practice	
Low Proficiency	Moderate Proficiency	High Proficiency
The OT's schedule and expectations for working conditions are inflexible.	The OT is willing to collaborate with the teacher under unexpected conditions (at the photocopier, outside during recess, etc.).	The OT is willing to collaborate with the teacher under unexpected conditions. The OT modifies their schedule to accommodate disruptions (student is sick, etc.).
The teacher does not adapt classroom routines, strategies, or teaching styles to accommodate goals or recommendations.	The teacher adapts classroom routines, strategies, or teaching styles to accommodate goals or recommendations for the student (e.g., the student may use a fidget toy, etc.)	The teacher adapts classroom routines, strategies, or teaching styles to benefit the whole class (e.g., all students may use fidget toys, etc.).

The professionals do not adapt or change goals or recommendations based on new information (e.g., assessment results, etc.).	The professionals adapt or change goals appropriately based on new information.	The professionals closely monitor the student's progress and seek information that can inform new iterations of goals and recommendations.

Skills – Ability to Think Creatively

Definition	The professional thinks in original and creative ways	
Descriptors	• The professional develops solutions to problems using the resources that are available • The professional embeds therapeutic techniques within the curriculum	
Low Proficiency	Moderate Proficiency	High Proficiency
The professional discards possible goals or recommendations if the resources/equipment are not available at the school (e.g., Theraputty, etc.).	The professional adapts goals or recommendations based on what is available at the school (e.g., use Play-Doh instead of Theraputty, etc.).	The professional adapts goals and recommendations to what is available and creates solutions by repurposing available resources (e.g., make putty using classroom craft supplies, etc.).
The professional performs therapeutic techniques at a time convenient to the professional, but inconvenient to the student (e.g., removes student from recess or class).	The professional disrupts the curriculum or class routine to carry out therapeutic techniques.	The professional embeds therapeutic techniques into the curriculum or class routine to avoid disruption or removing the student from class.

Skills – Ability to Remain Patient

Definition	The professional can tolerate delays that arise in the case.	
Descriptors	• The professional can tolerate slow progress in the student • The professional takes time to collect relevant information • The professional is patient with their counterpart	
Low Proficiency	Moderate Proficiency	High Proficiency
The professional eliminates a goal or recommendation when the student does not show progress early in the collaboration.	The professional acknowledges progress may be slow, does not eliminate goal or recommendation based on slow progress.	The professional acknowledges progress may be slow and looks for incremental gains, uses a fine-grained analysis to measure progress.
The professional makes goals or recommendations before collecting relevant information from their counterpart.	The professional makes goals and recommendations with their counterpart after both have proffered relevant information.	The professional makes goals and recommendations with their counterpart after both have proffered relevant information and observed the student.

The professional proceeds with goals and recommendations despite their counterpart not understanding aspects of the goals or recommendations.	The professional makes goals and recommendations that their counterpart does not understand, waits for counterpart to gain understanding (on their own time) before implementation.	The professional takes time to explain anything (e.g., information, technology, theory, etc.) that their counterpart may not understand.

Skills – Ability to Self-Regulate

Definition	The professional can regulate their physiological, emotional, and cognitive states to stay calm, alert, and focused	
Descriptors	• The professional recognizes their levels of stimulation • The professional has a repertoire of strategies to maintain optimal stimulation levels	
Low Proficiency	Moderate Proficiency	High Proficiency
The professional does not recognize their levels of stimulation (too tired, too anxious, etc.).	The professional recognizes their levels of stimulation.	The professional recognizes the antecedants that lead to unproductive levels of stimulation and works to eliminate those antecedants.
The professional lacks strategies to remain regulated when stressed, tired, etc. while collaborating. The professional becomes dysregulated.	The professional uses strategies (e.g., coffee when tired, breathing exercises when stressed, etc.) to remain regulated while collaborating.	The professional uses strategies to remain regulated while collaborating. The professional adjusts their behaviours while collaborating to help their counterpart or the student remain regulated.

Skills – Ability to Work Independently

Definition	The professional's sense of self-efficacy toward working on the collaboration without their counterpart present	
Descriptor	• The professional can work on goals or recommendations without their counterpart present	
Low Proficiency	Moderate Proficiency	High Proficiency
The professional feels they cannot work on goals or recommendations unless their counterpart is present.	The professional can work on goals or recommendations without the presense of their counterpart.	The professional can work on, and modify when necessary, goals or recommendations without the presense of their counterpart.

Skills – Observation Skills

Definition	The professional observes what is happening in the collaboration	
Descriptor	• The OT observes the teacher and the class • The teacher observes the OT perform therapy • The OT observes the teacher performing recommended therapeutic techniques	
Low Proficiency	Moderate Proficiency	High Proficiency
The OT does not observe the teacher while teaching.	The OT observes the teacher while teaching to better understand the student's environment.	The OT observes the teacher while teaching, the student's classmates, and how the teacher manages the class to tailor goals and recommendations for the student's environment.
The teacher does not observe the OT while the OT performs therapeutic techniques with the student.	The teacher observes the OT while the OT performs therapeutic techniques with the student to better understand the therapy the student receives.	The teacher observes the OT while the OT performs therapeutic techniques with the student and asks questions about anything not understood to better understand the therapy the student receives.

The OT does not observe the teacher performing recommended therapeutic techniques.	The OT observes the teacher performing recommended therapeutic techniques to ensure they are performed correctly.	The OT observes the teacher performing recommended therapeutic techniques and offers feedback based on observations.

Skill - Communicating with the OT/teacher

Definition	Conveying and receiving information about the case.	
Descriptors	• Establishing mutual understanding of the case with the other professional • Communicates in a timely manner • Listens to the other professional • Regularly provides feedback to the other professional • Able to communicate through different means	
Low Proficiency	Moderate Proficiency	High Proficiency
The professional communicates using language specific to one's profession, does not check for understanding with other professional.	The professional communicates using language specific to one's profession, checks for understanding with the other professional.	The professional checks for understanding with the other professional and, when possible, tailors the communication for their counterpart (i.e., avoids profession-specific jargon, uses terms their counterpart is familiar with).
The professional does not follow up with other professional between visits. Does not return calls/emails.	The professional follows up between visits and returns calls outside a reasonable length of time.	The professional follows up with other professional within an agreed upon length of time. Promptly returns calls/emails.
The professional does not pay	The professional pays	The professional demonstrates

attention to what the other professional says when communicating. The professional does not provide feedback to the other professional or provides negative feedback. The professional communicates only in person.	attention to what the other professional says when communicating. The professional provides generic, positive feedback. The professional communicates with the other professional in-person, through email, telephone, or other means that facilitate contact between the professionals.	listening through body language, paraphrasing, seeking clarification. The professional regularly provides feedback that is positive, specific, and instructive. The professional communicates with the other professional in-person, through email, telephone, or other means that facilitate contact between the professionals. Asynchronous communications are clear and thorough.

Knowledge – Understanding One Another

Definition	The professional knows what it is that their counterpart in the collaboration does and the responsibilities their counterpart has	
Descriptors	• The professional understands their counterpart's scope of practice • The professional understands their counterpart's frame of reference	
Low Proficiency	Moderate Proficiency	High Proficiency
The professional does not know their counterpart's scope of practice.	The professional knows their counterpart's scope of practice.	The professional knows their counterpart's scope of practice and understands the differences between similar professions (e.g., the difference between OT and PT, classroom teacher and resource teacher).
The professional does not understand the frames of reference of their counterpart and does not attempt to understand.	The professional attempts to understand the frames of reference of their counterpart.	The professional understands the frames of reference of their counterpart and can contribute to developing goals and recommendations based on those frames of reference.

Knowledge – Understanding Yourself & Your Practice

Definition	The professional has self-awareness and understands their own role	
Descriptors	• The professional understands their own role in the collaboration • The professional understands what their own limitations are	
Low Proficiency	Moderate Proficiency	High Proficiency
The professional does not understand what is expected of a member of their profession in the collaboration.	The professional understands what is expected of a member of their profession in a collaboration.	The professional understands what is expected of a member of their profession and has a deep knowledge of their profession's "tricks of the trade" that can be used when developing goals and recommendations.
The professional lacks self-awareness with respect to their own limitations (i.e., does not know what they have yet to learn to improve their practice).	The professional has self-awareness with respect to their own limitations.	The professional has self-awareness with respect to their own limitations and actively works to improve their practice.

Knowledge – Understanding Context

Definition	The professional understands the context of SBOT	
Descriptor	• The professional understands how the SBOT "system" works • The professional understands special needs and equity • The professional understands the environment the student engages in at school	
Low Proficiency	Moderate Proficiency	High Proficiency
The professional does not understand how the SBOT system works.	The professional understands some aspects of the SBOT system (e.g., how many visits the OT has, how equipment is procured, etc.)	The professional's understanding of how the system works is sufficient enough to explain it to others, including their counterpart.
The professional does not understand special needs and does not understand the difference between equality and equity.	The professional understands what special needs are but does not understand equity.	The professional understands special needs and understands how those needs relate to issues of equity.

The professional does not understand the school environment that the student engages in.	The professional understands the school environment that the student engages in.	The professional understands the school environment that the student engages in and tailors goals and recommendations to fit that environment.

Behaviours – Reflecting

Definition	The professional reflects in order to improve	
Descriptor	• The professional reflects on interactions with their counterpart • The professional engages in self-reflection	
Low Proficiency	Moderate Proficiency	High Proficiency
The professional does not reflect on their interactions with their counterpart.	The professional engages in reflection following interactions, especially set-backs in the collaboration.	The professional engages in reflection following interactions and uses insights gained through reflection to guide changes in the collaboration and create dialogue with their counterpart.
The professional does not engage in self-reflection about professional strengths and weaknesses.	The professional engages in self-reflection about professional strengths and weaknesses.	The professional engages in self-reflection about professional strengths and weaknesses and uses insights gained to guide professional development.

Behaviours – Tactfully Influencing

Definition	The professional influences their counterpart in a manner that does not leave their counterpart feeling judged	
Descriptor	• The professional uses their own competencies to bring about positive change in their counterpart	
Low Proficiency	Moderate Proficiency	High Proficiency
The professional disagrees with their counterpart's negative attitude, behaviour, etc., but remains silent.	The professional points out their counterpart's negative attitude, behaviour, etc.	The professional disagrees with their counterpart's attitude, behaviour, etc., and uses their own attitudes, knowledge, skills, etc., to role model and influence their counterpart.

Behaviours – Managing Responsibility

Definition	The professional fulfills responsibilities and delegates responsibilities when appropriate.	
Descriptors	• The teacher follows through on agreed upon goals and recommendations for the student • The professional familiarizes themself with the student • The professional delegates responsibilities to others	
Low Proficiency	Moderate Proficiency	High Proficiency
The professional often neglects obligations (e.g., communicating with their counterpart, paper work, etc.)	The professional fulfills their obligations.	The professional fulfills their obligations and commits to redressing inconveniences caused if they are remiss in fulfilling in their responsibilities.
The teacher does not consistently follow through on goals and recommendations for the student.	The teacher consistently follows through on goals and recommendations for the student.	The teacher follows through on goals and recommendations for the student. The teacher communicates with the OT in a timely manner if goals and recommendations need to be altered or replaced.

The professional makes goals and recommendations without being familiar with the student.	The professional observes the student and reads the student's IEP before making goals and recommendations.	The professional familiarizes themself with the student through observing the student, reading the student's IEP, talking with the student and the student's parent(s) and other relevant parties, before making goals and recommendations.
The professional delegates responsibilities (e.g., physical transfers of the student, measuring student progress on goals, etc.) to paraprofessionals or others who are not adequately prepared for such responsibilities.	The professional delegates responsibilities to paraprofessionals or others who are deemed adequately prepared for such responsibilities.	The professional delegates responsibilities to paraprofessionals or others only after coaching them on proper discharge of those responsibilities and assessing their ability to do so through direct observation.

Behaviours – Being Genial

Definition	The professional works to create an amiable atmosphere to collaborate in.	
Descriptors	• The teacher welcomes the OT into the classroom and school • The professional encourages their counterpart	
Low Proficiency	Moderate Proficiency	High Proficiency
The teacher treats the OT as an unwanted guest in the classroom.	The teacher welcomes the OT into the classroom.	The teacher welcomes the OT into the classroom, introduces the OT to class, and welcomes the OT into other spaces such as the staff room.
The professional does not offer their counterpart encouragement if a goal or recommendation is not acheived as desired.	The professional offers their counterpart encouragement if a goal or recommendation is not acheived as desired.	The professional offers their counterpart encouragement if a goal or recommendation is not acheived as desired along with strategies that may help the situation.

Behaviours – Respecting Boundaries

Definition	The professional recognizes and respects the boundaries delineating occupational therapy and teaching	
Descriptors	• The OT acknowledges they are a guest in the classroom • The professional does not cross professional boundaries unless they are acquainted with their counterpart's professional frames of reference	
Low Proficiency	Moderate Proficiency	High Proficiency
The OT enters the student's classroom without deference to the teacher and the class.	The OT respects that the classroom is the teacher's domain. They show respect for EAs, but do not substitute interacting with an EA for interacting with the teacher.	The OT respects that the classroom is the teacher's domain and interacts directly with the teacher. The OT tries to minimize any disruption their presence may cause to the students in the class.

The professional makes recommendations that are within the scope of their counterpart's profession, without understanding their counterpart's frames of reference.	The professional first commits to understanding their counterpart's frames of reference before making recommendations within the scope of their counterpart's profession.	The professional does not make recommendations that are within the scope of their counterpart's profession without first understanding their counterpart's frames of reference, and only after such an encroachment is welcomed by the counterpart.

Behaviours – Being Proactive

Definition	The professional acts in anticipation of potential set-backs rather than waits for set-backs to occur before acting	
Descriptors	• The OT provides alternatives to goals and recommendations • The teacher follows up with OT • The OT follows up with the teacher	
Low Proficiency	Moderate Proficiency	High Proficiency
The OT does not provide the teacher with alternatives to goals or recommendations for the student in case of set-backs with originally agreed upon goals and recommendations.	The OT provides the teacher with alternatives to goals or recommendations.	The OT provides the teacher with alternatives to goals or recommendations and ensures the teacher is comfortable using them.
The teacher does not contact the OT between visits.	The teacher contacts the OT between visits if there is a set-back in goals or recommendations for the student.	The teacher contacts the OT at agreed upon intervals of time to give status updates on the student's progress or any changes made to goals or recommendations.

The OT does not contact the teacher between visits.	The OT irregularly contacts the teacher between visits to check on the student's progress.	The OT contacts the teacher at an agreed upon intervals of time to check on the student's progress, offer suggestions, encouragement, etc.

Behaviours – Being Professional

Definition	The professional adheres to high standards of professionalism	
Descriptors	• The professional is reliable • The professional is punctual • The professional is consistent in their message to different people involved in the case	
Low Proficiency	Moderate Proficiency	High Proficiency
The professional is not available when say they will be. The professional neglects to do what they say they will do (e.g., bring equipment, etc.).	The professional is available when they say they will be. The professional follows through on what they say they will do.	The professional is available when they say they will be. The professional follows through on what they say they will do. If the professional cannot do these things, they alert their counterpart as soon as possible to make alternate arrangements.
The professional is consistently late for meetings with their counterpart.	The professional arrives to meetings at the agreed upon time.	The professional arrives to meetings at the agreed upon time. If the professional is going to be late, they contact their counterpart as soon as possible to let them know.

The professional gives contradictory information about the case to different people involved (e.g, tells parents something that contradicts what they told their counterpart).	The professional is consistent with what they say to different people involved with the case.	The professional is consistent with what they say to different people involved in the case, and forwards those people the student's goals and recommendations, and communications between the professional and their counterpart, such as progress updates, when appropriate.

Behaviours – Including Other

Definition	The professional takes a team-based approach to the collaboration and includes their counterpart throughout	
Descriptors	• The professional actively engages their counterpart in developing goals and recommendations for the student	
Low Proficiency	Moderate Proficiency	High Proficiency
The professional does not include their counterpart in decision making and does not seek their counterpart's opinions.	The professional seeks their counterpart's opinions before making decisions.	The professional seeks their counterpart's opinions and treats their counterpart as a co-equal in the decision-making process.

Beliefs – Believing Change Can Happen

Definition	The professional believes that positive change can come out of the collaboration	
Descriptors	• The professional believes in the student's potential • The professional believes in the possibilities SBOT can bring about	
Low Proficiency	Moderate Proficiency	High Proficiency
The professional believes the student cannot make progress towards goals for reasons intrinsic to the student.	The professional believes the student can make progress towards goals.	The professional believes the student can make progress towards goals and explains this position to anyone who doubts progress is possible.
The professional does not believe SBOT can help the student for reasons extrinsic to the student.	The professional believes that SBOT can help the student.	The professional believes that SBOT can help the student and explains this position to anyone who doubts SBOT is worthwhile.

Beliefs – Believing Others Want to Succeed, Too

Definition	The professional believes their counterpart wants the collaboration to be successful trying to do their best	
Descriptors	• The professional acknowledges their counterpart wants the collaboration to be successful	
Low Proficiency	Moderate Proficiency	High Proficiency
The professional does not believe their counterpart cares about the success of the collaboration.	The professional acknowledges their counterpart is trying to do their best.	The professional acknowledges their counterpart is trying to do their best and acknowledges their counterpart's positive contributions to the collaboration.

Beliefs – Confronting Assumptions

Definition	The professional questions their own assumptions about what their counterpart knows or should know	
Descriptors	• The OT does not assume that the teacher has an understanding of special needs • The teacher does not assume that the OT has all the answers for helping the student succeed	
Low Proficiency	Moderate Proficiency	High Proficiency
The professional makes assumptions about what their counterpart knows.	The professional does not make assumptions about what their counterpart knows.	The professional does not make assumptions about what their counterpart knows and confirms what their counterpart knows at the onset of the collaboration.