

A Scoping Review of Interprofessional Collaboration between  
Educators and Health Professionals

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*for my students and fellow colleagues*

## Abstract

My thesis examines the interprofessional collaboration between school-based educators and health professionals (HPs). Four research questions guided the study: 1) What is the current state of literature on interprofessional collaborations between school-based educators and HPs? 2) Based on the existing literature, how are school-based educators and HPs collaborating interprofessionally? 3) Based on the existing literature, what are the outcome(s) or impact(s) of interprofessional collaborations between school-based educators and HPs? and 4) Based on the current state of the literature, what areas are important to consider for future research on interprofessional collaborations between school-based educators and HPs? It is important for both school-based educators and HPs alike to consider answers to these questions as it can refine and strengthen their current and future practices in an effort to ultimately create a successful working and learning environment for themselves and for their students and patients. Systematic searches of four databases yielded 46 articles for inclusion, data extraction, and analysis.

Through a thematic analysis of the literature, I found the following two overarching themes that govern the implementation of interprofessional collaboration: 1) time and 2) funding. In addition to these themes, I extracted two major themes and one minor theme from the literature that can guide current and future interprofessional collaborative practices. These themes included 1) *pre-service training* whereby a) everyone is involved, b) there is a mutual understanding between and of educators and HPs, c) both educators and HPs feel valued in their positions for their work, d) there is less sophisticated profession-specific jargon which can in turn open further dialogue between both teams of professionals, and e) a journal or frequent log can be kept to track the successes and challenges of and suggestions for the collaborative efforts as well as of student satisfaction; and 2) *in-service training* whereby a) educators and HPs are able to maintain

consistency in their roles and responsibilities as well as for students educationally, and b) provide continued support for all. I discuss methods of how this interprofessional collaboration could be implemented, noting a) proximity (i.e., how closely, in what ways, and how frequently educators and HPs work together) and b) frequent meetings as essential to successful interprofessional collaboration. Finally, a minor theme emerged from the literature with suggestions for current and ongoing implementation of interprofessional collaboration which suggested a) increased and stronger liaison in schools and b) frequent meetings to establish and build upon a foundation that will foster further interprofessional collaboration. This review of the available literature on this topic, especially of the literature empirical in nature, worked to map key concepts, evidence, and main sources of information as well as synthesize a myriad of information (Arksey and O'Malley, 2005), fill a visible gap in the area of interprofessional collaboration among school-based educators and HPs specifically, and provide avenues for further study and practical application.

*Keywords:* interprofessional collaboration, education, health professionals, qualitative, scoping review

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## **Introduction to my MA Thesis by Article**

I completed this MA thesis in article format which has three sections. The first section is a preface to my thesis study on the collaboration between educators and health professionals (HPs). Here, I introduce and describe the research problem that I explored, the rationale for such study, and the research objectives and questions that guided the study. I also outline the methodology that formed the foundation of my thesis study and epistemologies that constitute the sources of knowledge demonstrated in this study. I present the motivation for my study, as well as my positionality as both a researcher and educator, bringing forth a firsthand perspective as an educator, and explain how these perspectives impact the trustworthiness of my study. I conclude this section by sharing the potential contributions that this study suggests for both education and health professions education alike at a research and practical level. This information provides greater insight into the following sections of my thesis by article.

In the second section, I present my thesis study in article format. My thesis study entitled, *A scoping review of interprofessional collaboration between educators and health professionals*, explores the literature surrounding the extent, nature, and benefits and hinderances of collaboration between both professions. It also suggests areas that are important to consider for future research on this topic.

In the final section, I conclude with a summary that outlines what I learned as a researcher and also as a teacher while engaging in this thesis study presented in the above-mentioned section. Specifically, I highlight the successes and challenges I faced while conducting a scoping style study and review next steps for application of interprofessional collaboration in both an education and health professions education context.

## **Section 1: Preface**

### **Description of Problem and Rationale**

Schools around the world are accommodating students with various learning needs in an effort to provide a strong inclusive educational environment within mainstream schools (Karlsson et al., 2018). However, despite how eager educators are to incorporate all students within their classrooms, educators are reporting feeling overworked and ill-equipped to deal with the demands and responsibilities of their role within this environment (Ekornes, 2015; Whitley, 2010). These educators include school-based teachers who are responsible for developing, implementing, assessing, guiding, and/or supporting a student academically, as well as physically and/or socially-emotionally. As such, it is understandable then that teachers already uphold a multitude of responsibilities and could thus benefit from guidance and support themselves in supporting their students. Consequently, educators have identified needing further professional development and training, as well as external support from health professionals (HPs), such as speech-language, occupational, and physical therapists, many of whom work within schools to assist students with exceptionalities. Educators are requesting interprofessional partnerships with these experts in the health professions who can collaborate with them to support them in their quest for student inclusion (Ekornes, 2015; Suc et al., 2017).

As Lupart et al. (2005) and Whitley (2010) explain, the needs of students are often complex and require support from a team of multiple professionals, such as speech-language, occupational, and physical therapists. However, such collaboration between these professionals (i.e., HPs and educators) is strictly regulated in Ontario by Policy/Program Memorandum No. 149 (2009) which governs that protocol related to the interprofessional collaboration between HPs and educators and ensures that it is consistent with standard school board provisions. These

restrictions ensure that all involved, namely students', safety and privacy are protected and that all parties can respectively provide and receive services that align with the necessary protocol. Although there may be factors that could lengthen the process or impose certain restrictions in the delivery of services, having educators and HPs collaborate is still worthwhile and is the rationale for investigating this topic within my study. Ultimately, HPs and educators are professionals who usually have a strong understanding of the multitude of exceptionalities from different disciplinary perspectives and are prepared to achieve the best outcomes for all involved in a highly collaborative manner. Therefore, bringing forth interprofessional collaborations among HPs and educators has become almost necessary in ensuring educators, HPs, and students alike are well-supported in each of their positions.

### **Research Objectives and Questions**

It is evident that educators and HPs are key partners in ensuring the educational success of students, especially those with exceptionalities (Thyer, 1996). There is a need to further understand and define the body of literature surrounding the interprofessional collaboration between educators and HPs. As such, I conducted a form of literature review known as a scoping review that maps the key concepts underpinning a research area and the main sources and types of evidence available (Arksey & O'Malley, 2005). From this review, I was able to understand the depth and breadth of interprofessional collaboration among different types of HPs and educators. This in turn helped me understand how HPs and educators are collaborating, and how the outcome(s) or impact(s) of their collaborations are useful from both a health and educational standpoint. Furthermore, given that a scoping review was not linear but rather iterative, I was able to engage with each research step as part of this process in a reflexive way to ensure the consideration of all literature. Ultimately, the objective of this study was to explore the existing

literature on interprofessional collaboration between educators and HPs, with specific focus on the types of and rationales for interprofessional collaborations between educators and HPs. I met this objective by pursuing research that focused on the following guiding research questions:

1. What is the current state of literature on interprofessional collaborations between school-based educators and HPs?
2. Based on the existing literature, how are school-based educators and HPs collaborating interprofessionally?
3. Based on the existing literature, what are the outcome(s) or impact(s) of interprofessional collaborations between school-based educators and HPs?
4. Based on the current state of the literature, what areas are important to consider for future research on interprofessional collaborations between school-based educators and HPs?

## **Scoping Reviews**

### ***What Are Scoping Reviews?***

For the purpose of this study, I conducted a form of literature review known as a scoping review. As mentioned, scoping reviews work to map the key concepts underpinning a research area and the main sources and types of evidence available (Arksey & O'Malley, 2005). Thus, scoping reviews are generally exploratory, in that they involve searching, gathering, analyzing, interpreting, and presenting all data available on the topic, but do not produce a single answer or perspective (Arksey & O'Malley, 2005). By contrast, they synthesize myriad information available on the topic (Arksey & O'Malley, 2005) which is helpful when seeking to understand the general state of literature. In addition, scoping reviews allow researchers the opportunity to engage with each stage of the scoping review process in a reflexive and iterative manner,

whereby researchers are able to build upon interpretation that is shaped by knowledge acquired through the scoping review process combined with their own personal experiences and expertise (Arksey & O'Malley, 2005).

### ***Why is a Scoping Review Best Suited to My Study?***

As noted, scoping reviews allow researchers to engage with the research in a way that is both iterative and reflexive. The iterative nature of these reviews allows for repetition of steps to ensure that all literature covered is done so in a comprehensive way (Arksey & O'Malley, 2005). This comprehensiveness was crucial to ensure that I not only gathered all data on the topic possible, but that I was interpreting it in a way that respected all viewpoints presented in the literature, and presented it in a way that allowed for transparency in any potential biases, as well as avenues for future research and practice. Similarly, given that preliminary reviews of the literature determined that educator and HP collaborations was not a well-studied topic, with several key terms that researchers tended to use interchangeably (e.g., interprofessional, interdisciplinary, and transdisciplinary), applicable research and perspectives could have become lost in the alternative uses and misuses of search terms and within the depths of journals and other studies that I wanted to make every effort to incorporate them. In practicing this repetitive approach, it also assisted me in understanding the many facets of this topic and not just smaller parts of it so that I could piece together research that is stronger, comprehensive, and ultimately more than sufficient in proposing opportunities for future research and practical change. Finally, the reflexive discourse I engaged in throughout this process provided me with the opportunity to infuse my own knowledge, expertise, and experiences (Arksey & O'Malley, 2005) into my research and openly challenge my perspectives by engaging in critical thought in an effort to enhance my study.

## **Positionality and Trustworthiness**

### ***Trustworthiness of the Researcher as an ‘Instrument’***

There is a level of subjectivity that coincides with the researcher as “instrument”, which Tufford and Newman (2010), Creswell (2013), and Thomas et al. (2019) assert can affect the way in which research is collected, analyzed, and presented. This instrumental approach is often utilized to provide firsthand knowledge and experience and act as an opportunity to build upon current tacit understandings (Guba, 1981). I did approach this study with a level of bias, given that I am both a researcher and educator currently studying and working with other educators and HPs and therefore offer a personal perspective. However, as Guba (1981) suggests, I presented my preconceptions in an effort to create a separation between my experiences and research findings. Maintaining this “optimal distance” (p. 77), which Guba (1981) describes as situating oneself in the perspective of the research participants to understand the phenomenon, allows me to practice reflexivity and thus minimize my biases which will ultimately increase the trustworthiness of my study’s results.

Furthermore, (Thomas et al., 2019) identifies that especially within the epistemological underpinnings of scoping reviews, researchers can decide what information is possible, adequate, and legitimate (Crotty, 1998). Therefore, by engaging with my research team in “deliberate and explicit conversations that value multiple perspectives and stances” (Thomas et al., 20219 p. 999), we can clearly and more objectively articulate and defend our opinions and the methodological choices being made. As such, there is already an expected level of insertion into one’s own research with this interactive methodology which makes it especially important for me to continue communicating my rationale for this study and justifying the viewpoints I have as well as meaning I give to particular findings.

In accordance with this understanding, I present the motivation behind this study that generated the research herein, as well as my positionality on the collaborations between educators and health professionals.

### **Motivation for This Study**

As a teacher, I understand the importance of and ongoing need for collaboration. It is essential to the craft of teaching given that it is how we share resources and ideas, work together to determine and implement solutions to problems or to further enhance student achievement, as well as support one another and our students in successes and hardships alike. However, many of us often find it difficult to find this time to collaborate with increasing demands and responsibilities being placed upon us. This creates a real divide given that we have little time to collaborate but are aware of how the collaborations would likely reduce the added stressors and generate efficiency in our work. It is finding this time and holding ourselves accountable to making it a functional aspect of our careers that has been and currently is a struggle for so many, including for me.

As a relatively new teacher, I am still in a significant learning process. Though, as educators we are always learning, growing, and building upon the foundations of knowledge, skill, and experience, the first few years are known to be some of the most involved, making it challenging to find time to engage in additional collaborative experiences. Last year, during my first year of graduate studies, I was working contractually toward permanent teaching status. During this time, I juggled teaching impressionably, grading and assessment outside of school hours, administrative paperwork that is largely not discussed when you become a teacher, school-based extracurriculars, my masters degree and my own life and commitments, on top of continuing to “learn as I go” in my profession. This year was also when I encountered a speech

language pathologist (SLP) who I learned would be responsible for pulling several of my students per week for structured literacy development and individualized speech therapy. Initially, she and I would rarely interact beyond our exchanges we shared when I acknowledged my students leaving to attend the program with her. However, during the reporting period, I finally reached out to discuss student progress as she saw many of my students for the subject of language arts. She was taken aback as she informed me that very few teachers would reach out to discuss development - she felt that her position as an SLP and ours as teachers were very individualized in that we work on our own with little communication between us. However, she felt that collaboration was preferable given the benefits of communication and collaboration that work to foster success for both professionals and students alike. As a result, this ignited my interest by generating intrigue in further exploring this lack of collaboration phenomena, encouraging me to pursue my masters degree and research more on this topic.

### **Positionality**

In this section, I present my positionality on the collaborations between educators and health professionals, approaching it from two unique lenses: 1) as a teacher who understands the importance of collaboration and the lack of current collaborative opportunities, and 2) as a former student within the teacher education program and lifelong learner pursuing continuing studies in education where reciprocity of expertise sharing would be of benefit and immense value. Further, I describe my positionality from the perspective of one educator of many who share my perspective and continue to work alongside me to advocate for improved collaborative practices. I use this aspect to share my own perspective and act as a voice for those who are not able to.

#### ***Position as a Teacher***

As mentioned, the lack of collaboration between educators and external professionals who assist within the school environment is common, but so too is the lack of collaboration amongst educators. While many educators may agree that they work together frequently, the ways in which they are “collaborating” and the purpose of their collaborations could be greatly improved. These collaborations amongst educators also provide insight into how and why issues arise when engaging in collaborations amongst other professionals than themselves.

Most notably, time and resources appear to be the largest limiting factors. Educators are already burdened by little time throughout the day, despite further interruptions and added responsibilities placed upon them. When they are interested in material items for their students (e.g., assistive technological devices such as fidget tools and manipulatives or tablets with word processing software), courses and programs, or professional development opportunities, they are often at a minimum given the requirement of the funds to be shared across the classes within the school, and across the schools within the board at large. While additional, new, and requested professional development opportunities are beginning to take place, they are usually at the expense of educators’ time within the classroom, requiring them to hire a substitute teacher for the day of the session, and later, leave the session feeling inspired and eager to make a difference, but taxed with returning to the same environment with little to no time, resources, and support to implement and share newly learned knowledge, skills, and strategies.

In terms of external collaborations, many educators express that they are ready for the opportunity to learn from and work with HPs. Given the increase in students identified with special needs who are included within the general education classroom setting, educators often yearn for increased understanding and support so that I can be appropriately inclusive of these students’ learning needs. In addition, many students are often not identified as having special

needs, whether this is a result of psychoeducational evaluations of students (that work to determine special needs) not having taken place, students currently in the process of undergoing these evaluations, or parents choosing not to evaluate at all. As a result, the students and the educators responsible for them are often not able to receive increased support given that there is no known “need” on file. As such, educators are left with no choice but to use our professional judgement in an effort to “diagnose” issues to in turn substantiate additional assistance within the classroom that may or may not even turn out to be of benefit to the student(s) in question.

Moreover, when students are known to have certain special needs, the support that they require (and/or could benefit from if not required) is often not communicated effectively and in a way that educators may understand and have the means to apply. Therefore, having an HP who is highly knowledgeable and skilled at their craft and creative at determining ways of approaching problems and providing solutions assist us in navigating through these challenges would help us immensely. It would allow educators to not only continue their practice as educators with all of the responsibilities that it entails, but also feel confident that their students are receiving support in general, particularly the most appropriate support they can.

### ***Position as an Education Student***

As a former student within the teacher’s education program, I recognize the importance of preliminary learning. That is, there is a significance to learning about the many facets of teaching before entering the workforce. While a student, we were exposed heavily to collaboration amongst colleagues, but very little to those outside of our field. As a result, we did not network with many external professionals, nor were able to truly understand through experience the value of interprofessional collaborations. As such, when entering a school as a

teacher, these types of collaborations appeared (and still continue to appear for many) daunting, burdensome, and excessive, despite their known benefits.

Personally, after graduation of the teacher's education program and before engaging in research, I had hoped we would have the opportunity to experience working with all individuals possible within a school, including but not limited to other educators, assistant educators, administrators, and external professionals alike. I felt that between our coursework and practical experiences, especially with the added year to the program in the province of Ontario, this was necessary and was to be expected. Much to my surprise, there was some instruction relative to this topic, but little to no practical interactions, leaving us learning about and engaging in interprofessional collaborations for the first time as working professionals.

In addition, after completing a mere preliminary search for my study to determine the literature available and areas of consideration, I realized that this was a larger issue that was affecting more than me and my colleagues - rather, this was a global issue within many teacher education programs whereby students and faculty were in agreement of the importance of exposure to and practical experience in interprofessional collaborations. As such, I no longer felt a lack of confidence and experience but rather a heightened competency and interest for researching a topic that could act as a vehicle for change for future candidates.

Finally, as an educator who still happens to be a student in both graduate studies and continuing studies in education for specialized teacher's education courses, I continue to see the lack of instruction and experience in interprofessional collaborations.

Ultimately, my goal through this research, and continued advocacy within my school and board as an educator where my research can be applied, is to generate a deepened understanding of interprofessional collaborations, including its successes and challenges. I hope to do this by

sharing research found on the topic and its associative factors that hinder and facilitate these collaborations in an effort to foster a interest in bringing forth more opportunities at the post-secondary level and workplace for interprofessional collaborations.

### **Epistemology**

My positionality combined with the reflexive nature of scoping reviews, collectively allowed me to situate myself within my study, identify the lenses through which I interacted with my research, and declared all potential biases that I possess and brought forth throughout the research process. Moreover, the philosophical understandings that underpin this research are collectively central to understanding how I shape the way my study is conducted. I explain the epistemology aligned with scoping reviews through what Crotty (1998) and Lincoln and Guba (1985) denote as the theory of subjectivism, which "rejects the idea that there is a single objective truth to discover and measure" (Thomas et al., 2020, p. 992).

Essentially, truth can be divided into two categories, objective and subjective. These truths have oppositional methodologies. Objective truths can be determined through the use of a scientific method whereby biases and external influences are systematically stripped from an experience, event, or study until all that remains is the experimentally-derived truth. Subjective truths cannot be sought in the same manner. A subjective truth is derived from passing an experience, event, or study through the lens of a subjectivist who aims to view that truth (Crotty, 1998). As subjectivists cannot be entirely consistent, so too is a subjective truth not always consistent across time, experience level, geography, expertise, and the like. In this case, the subjectivist must first acknowledge that they view truth through their personal lens, and second, if possible, employ additional subjective lenses to further refine the search for the truth (Lincoln and Guba 1985, p. 213).

Analogously, we can envision the scoping review process as a periscope maker (the subjectivist) building a periscope (seeking the truth). The maker chooses the types of lenses and thicknesses (articles and grey literature within a study category) to be included. The maker will test and retest the periscope and reevaluate it until the clearest possible image can be seen through it (the truth). However, the maker must remember that what they see is only the truth to the extent which they aimed to see through the periscope and that their own eye is a lens in itself.

Given these epistemological underpinnings, a universal truth (or a singular set of findings and meaning in the context of this scoping review study) will not be possible as the subjective nature of the study deems that the views are greatly influenced by that of the observers (Huff, 2009; Lincoln & Guba, 1985). Rather, this scoping review will aim to address the myriad of information presented on this topic in combination with the perspectives (or subjective truths) I can provide that will give meaning and add a richness to my findings and study overall (Arksey & O'Malley, 2005).

### **Potential Contributions of This Study**

Educators and HPs alike have advocated for collaborative efforts to be made to ensure the success of their students and patients, especially those with exceptionalities (Karlsson et al., 2018). Educators and HPs have also documented interest in collaborating in an effort to assist themselves professionally to ease the load of responsibilities in their roles and be able to provide more structured and personalized educational services. By documenting and reflecting on the extent to which HPs collaborate with educators interprofessionally, this study contributes to the growing body of research on interprofessional collaboration by building upon the limited research of school-based educator and HP collaborations specifically. Additionally, this study can provide further guidance to both educators and HPs who are interested in working

collaboratively. It provides an understanding of how interprofessional collaboration is currently carried out and how it can be better executed, the successes that motivate collaborative practices and challenges that place restrictions on educators and HPs and ultimately hinder collaboration, as well as the outcomes and impacts of interprofessional collaboration that work to motivate and map a pathway for all professionals interested in taking part in or bringing forth interprofessional collaborative opportunities.

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## **Section 2: A Scoping Review of Interprofessional Collaboration between Educators and Health Professionals**

### **Introduction**

As the number of students identified with exceptionalities continues to increase (Per Egil Mjaavatn & Sip Jan, 2015), and especially as these exceptionalities become more complex and multifaceted, there is a heightened request for specialized support from a team of multiple professionals (Lupart et al., 2005; Whitley, 2010). Given that school-based educators and health professionals (HPs) are key partners in ensuring the educational success of students, especially those with exceptionalities (Thyer, 1996), interprofessional collaborations between the two types of professions has become important (Majasic et al., 2015; Suc et al., 2017). Understandably, then, this subject is of particular importance to both school-based educators and HPs alike. As such, both groups of professionals could benefit from a deepened understanding of how and what types of collaboration are currently taking place, the factors that can facilitate and hinder collaboration, as well as what to consider for current and future interprofessional collaborations.

My choice to investigate the interprofessional collaboration of HPs and educators is motivated by several factors. First, as an elementary school teacher, I have observed the challenges that educators face with regards to supporting students with various learning needs, including those with exceptionalities. Although these challenges may stem from several factors, including access to and availability of resources, funding, and/or time, there also appears to be a disconnect in communication between educators and HPs. When students with exceptionalities receive academic and/or personal support from a HP (such as a speech-language pathologist, occupational therapist, or physical therapist), the assistance, recommended strategies, and suggested supports are not always communicated effectively to educators, and in some cases, are not communicated at all.

Second, during the past year as we have been navigating through the current global pandemic of COVID-19, many institutions, particularly educational institutions, have been relying on working in an interprofessionally collaborative manner with HPs to gain guidance and support in terms of the physical health and safety for both staff and students. This collaborative involvement helps to ensure that students safely and successfully obtain educational outcomes. As such, understanding how HPs and educators collaborate interprofessionally will assist us in understanding how each discipline can benefit the other reciprocally. The information gained will in turn provide knowledge and possibly strategies for application of interprofessional collaboration and prepare both educators and HPs for circumstances that arises in the future where education and healthcare as well as the individuals that they serve are affected.

Third, the number of students identified with exceptionalities is increasing (Per Egil Mjaavatn & Sip Jan 2015). To meet the growing demands to support these students, having educators and HPs work together can eliminate disconnectedness in communication and create an open dialogue through which educators and HPs can discuss, develop, and implement appropriate and necessary action plans. This collaboration is necessary to satisfy the needs of students with exceptionalities, the concerns educators have with regards to supporting students with exceptionalities within their classrooms, as well as the understanding HPs have of their patients' or clients' academic backgrounds, skills, and needs reciprocally.

Finally, preliminary reviews of scholarly literature suggest that there is a gap in the literature related to the interprofessional collaboration of health and education professionals. Most research focuses on the interplay of students with and without exceptionalities and either their educators *or* HPs. As such, this study will provide an extension to the existing research as well as an understanding of how interprofessional collaboration among a diverse team of

professionals can benefit all involved.

### **Purpose and Research Questions**

It is evident that educators and HPs are key partners in ensuring the educational success of students, especially those with exceptionalities (Thyer, 1996). There is a need to further understand and define the body of literature surrounding the interprofessional collaboration between educators and HPs. As such, I conducted a form of literature review known as a scoping review that maps the key concepts underpinning a research area and the main sources and types of evidence available (Arksey & O'Malley, 2005). From this review, I was able to understand the depth and breadth of interprofessional collaboration among different types of HPs and educators. This helped me understand how HPs and educators are collaborating, and how the outcome(s) or impact(s) of their collaborations are useful from both a health and educational standpoint. Furthermore, given that a scoping review is not linear but rather iterative, I was able to engage with each research step as part of this process in a reflexive way to ensure the consideration of all literature. Ultimately, the objective of this study was to explore the existing literature on interprofessional collaboration between education and HPs. In the review, I specifically focused on the types of and rationales for interprofessional collaborations between HPs and educators.

The following research questions guided my scoping review:

1. What is the current state of literature on interprofessional collaborations between educators and HPs?
2. Based on the existing literature, how are educators and HPs collaborating interprofessionally?
3. Based on the existing literature, what are the outcome(s) or impact(s) of interprofessional collaborations between educators and HPs?

4. Based on the current state of the literature, what areas are important to consider for future research on interprofessional collaborations between educators and HPs?

### **Study Background**

Before conducting this scoping review, I defined the key concepts relevant to the topic so that I was a) sufficiently informed to design a meaningful search strategy to locate scholarly literature, and b) adequately prepared to interpret the search results. To do this, I reviewed the theoretical literature in healthcare and education to define the overarching key terms for this interprofessional study.

### **The Healthcare Professional as an Interprofessional Collaborative Member**

An HP is an accredited professional who plays a critical role in promoting health, as well as in delivering and improving access to and quality of healthcare services for individuals, families, and communities (World Health Organization, 2020). An HP can do this within the healthcare setting itself or offer these services within other environments, such as within the educational environment. These HPs encompass accredited persons who have or are likely to intentionally influence any aspect of the physical, mental or social-emotional health, and well-being of a person or population of people with the expressed goal of improving, repairing, or otherwise addressing at least one of the aforementioned aspects of health. For the purpose of this review, I will consider studies that include rehabilitative HPs specifically (i.e., allied health professionals [AHPs] including speech-language pathologists [SLPs], occupational therapists [OTs], and physical therapists [PTs]) who have or who have expressed interest in collaborating with (an) educator(s). Although several HPs are commonly found working in and with schools, such as counsellors and therapists, psychologists, and school nurses namely, the focus will be on the three aforementioned types of HPs. These three types are most likely to collaborate or

express interest in collaboration with educators based upon their line of work in providing close therapeutic support to children, especially considering they often work with students and even within the classroom in some instances on a more frequent and ongoing basis. As such, considering these three perspectives in healthcare will ensure I do not limit the scope of my review to studies of one health profession while unintentionally excluding studies that consider other valuable contributions made by other HPs. It also still allows me to narrow the scope of my research to a reasonable degree in an effort to generate more tailored findings.

### **The Educator as an Interprofessional Collaborative Member**

Traditionally, an educator is thought to be a classroom teacher, but more recently, and as I will define for the context of this study, they encompass any school-based educator who is responsible for developing, implementing, assessing, guiding, and/or supporting a student academically, as well as physically and/or socially-emotionally. However, for the purpose of this review, I will consider studies that include school-based teachers only who have collaborated or expressed interest in collaboration with(an) HP(s). Between the sheer volume of studies on school-based teachers alone, combined with the little research that has been conducted on other types of educators (i.e., pre-school educators and educational assistants) and their collaborations with HPs, it seems appropriate to limit the “educator” in this case to school-based teachers. This allows me to retrieve sufficient findings that could generate a wealth of knowledge and be applied to other areas of education without greatly limiting the scope of my study.

### **Distinction Between Interprofessional and Interdisciplinary Collaboration**

For the purpose of this study, it is essential to delineate between *interprofessional* and *interdisciplinary* collaboration. Although there is overlap between the two, they ultimately draw

upon different perspectives. The focus of interprofessional hinges on the collaboration among professional partners with the goal of improved outcomes (Green and Johnson, 2015). In this sense, it is a more practical form of collaboration. By contrast, interdisciplinary collaboration is instead used to develop new domains of knowledge (D'Amour & Onadasan, 2005). Considering this study is a more pragmatic approach in that it seeks to understand how we can integrate, connect, and blend ideas and concepts from each profession in an effort to provide stronger strategies and solutions that contribute to the educational success of students, the term *interprofessional* collaboration is appropriate and will thus be the method of collaboration used throughout this study.

### **Collaboration**

Bringing people together does not necessarily result in collaboration (Baerg et al., 2012). Rather, collaboration is considered a multifaceted and complex concept that refers to the intentional practice of all involved working together to achieve a shared purpose and common goal (D'Amour et al., 2005; Massey et al., 2015). There has been increasing emphasis on collaboration and working together as a team generated by rapid growth in complex problems that necessitate input and insights from many professionals to arrive at effective strategies and solutions (McMurtry, 2013). Therefore, for the purpose of this scoping review, the concept of collaboration will include mutual responsibility, shared decision-making, pooling of resources, and joint accountability for recognition, strategies, and solutions from both educators and HPs (Babyak et al., 2001; D'Amour et al., 2005; Klein, 2005). Furthermore, as those involved share their expertise, new practices can develop, problems can diminish, and team members can learn and grow as individuals, professionals, and as teams. Thus, all those involved can work to

successfully provide appropriate and comprehensive educational support (Barnes & Turner, 2001; D'Amour et al., 2005; Friend, 2000; Suc et al., 2017).

By contrast, I may also find studies that are critical of interprofessional collaboration among HPs and educators and that may even present instances of and/or reasoning for unsuccessful interprofessional collaboration. As such, I will equally consider these studies and analyze their outcome(s) and impact(s) to present a more holistic extent of interprofessional collaboration among HPs and educators. These studies will also assist in addressing what areas are important to consider for future research in this field.

### ***Leadership and collaboration***

Although collaboration is widely promoted (Massey et al., 2015), there is undoubtedly room to further develop interprofessional collaborative practice among educators and HPs (Massey et al., 2015). As such, leadership is at the forefront of this collaborative initiative and is a critical requirement for developing successful interprofessional collaborative partnerships. Whitley (2010) explains leadership in the context of collaboration and uses Pervin and Gitterman's (2008) perspective to define leadership as sharing expertise, improving decision-making, establishing or enhancing referral and case-management practices, and increasing access to services and supports in an effort to ultimately improve outcomes for students. Therefore, taking the "lead" in a collaborative effort is not about managing or centralizing oneself in the process, but is rather looked upon as a springboard to collaborative action.

### ***Reciprocity***

Integral to collaboration and leadership is reciprocity, a notion that highlights the mutuality of roles as shared, as opposed to unilateral (Massey et al., 2015). In the context of this study, this sets forth the understanding that both educators and HPs must be aware of and sensitive to the

impact of both the knowledge differentials in the collaborative environment and differing degrees of familiarity with interprofessional collaboration (Massey et al., 2015). Therefore, neither profession should feel as though they are primarily providers and not receivers of information when collaborating interprofessionally (Ekornes, 2015; Massey et al., 2015).

### **Methodology**

As previously indicated, to describe the state of literature on interprofessional collaborations between educators and HPs, I conducted a scoping review (Arksey & O'Malley, 2005). This scoping review involved an iterative, five-stage approach designed to examine the extent, range, and nature of research activity in a particular field, especially when evidence in this field is complex or is only beginning to emerge. The scoping review aimed to summarize the existing evidence on this topic, identify gaps within it, evaluate the need for future research (Arksey & O'Malley, 2005), and identify sources of evidence to inform practice (Daudt et al., 2013). This study employed the five steps of the scoping review framework to ensure that 1) the results of this study were replicable, 2) the results could be updated with information from future studies in the field, and 3) the methodological process was rigorous throughout with a correspondingly thorough conclusion. The five steps were as follows:

#### **Stage I: Identifying the Research Questions**

In the first step, I identified the research questions which guided this study. The questions underpinning this scoping review were deliberately broad in an effort to “generate breadth of coverage” (Arksey & O'Malley, 2005, p. 10) and to gain a wide perspective of the relevant body of literature. Nonetheless, I ensured to adhere to the approach of Levac et al. (2010) - that research questions should still be comprehensive to avoid falling short of

incorporating relevant evidence and that all concepts and key terms within each question should be well-defined to inform an appropriate and thorough search strategy.

As previously stated, this study addressed four research questions: 1) What is the current state of literature on interprofessional collaboration between educators and HPs? 2) In the existing literature, how are educators and HPs collaborating interprofessionally? 3) Based on the existing literature, what are the outcome(s) or impact(s) of interprofessional collaborations between educators and HPs? 4) Based on the current state of the literature, what areas are important to consider for future research on interprofessional collaborations between educators and HPs? Within these questions, the use of the term “interprofessional” ensures that the focus is not on the separation of work by HPs and educators, but rather that the focus is on their collaborative efforts as being integrated, linked, and blended (Cohen, 2014) between them. In all four questions, the term “health professionals” broadly encompasses accredited persons who play critical roles in influencing aspects of the physical, mental or social-emotional health, and well-being of a person or population of people with the expressed goal of improving, repairing, or otherwise addressing at least one of the aforementioned aspects of health. For the purpose of this study, these “health professionals” includes allied health professionals (AHPs) who work within or who are in post-secondary clinical training to work within rehabilitation (i.e., speech-language pathologists [SLPs], occupational therapists [OTs] and physical therapists [PTs]). The purpose for considering studies that include these particular HPs only as opposed to incorporating findings from all or other HPs is that it captures some of the scope of interprofessional collaboration while providing a more tailored approach where trends and themes can emerge that can hopefully apply to other areas. Specifically, these HPs work closely with children to better their health which in turn directly affects the child’s academic development, leaving these HPs to

likely experience or express interest in experiencing collaborations with educators. As such, these HPs can provide insight on their prior engagements in (or lack thereof) interprofessionally collaborative opportunities, generating findings that could inform future practices of interprofessional collaboration.

The term “educator” refers to licensed teachers who work, or who are in post-secondary training to work, with students in school-based institutions (i.e., kindergarten to grade 12 teachers). The choice to limit the type of educator to licensed teachers and students on route to becoming licensed teachers was motivated by the fact that both have the opportunity to learn about and engage in interprofessional collaboration. Most notably, piloting of interprofessional collaborative components may be even more prevalent in teacher education programs which seek to prepare upcoming teachers for success in all areas, including in collaborative environments. The choice to exclude early childhood educators and educational assistants was determined by a) the sheer volume of studies within a preliminary search of the literature that considered these professionals being quite high, and also by b) this preliminary search of the literature that also showcased little focus on the collaborations between early childhood educators or educational assistants and HPs. Focusing this study on teachers specifically, then, allows for a more tailored perspective and richness of the topic without interfering with the broad scope of the study.

The variations of the term “collaborate” (i.e., collaborating, collaboration(s), collaborative) are used to express a working relationship whereby both HPs and educators are working jointly and reciprocally. Ultimately, these linguistic parameters, considerations, and inclusions assisted in generating research surrounding the topic of interprofessional collaboration between these disciplines, while specifically garnering research on the outcome(s) or impact(s)

of interprofessional collaborative efforts between HPs and educators, as well as locating areas that are important to consider for future research.

## **Stage II: Identifying Relevant Studies**

Given that scoping reviews aim to be as comprehensive as possible, it was necessary to seek literature from a number of sources including electronic databases, key journals, books, and grey literature (such as publications from educational or governmental organizations). As grey literature was consulted, exact sources were identified during the searching phase while familiarity with the field increased. Sources searched included databases such as Educational Resources Information Center - ERIC (OvidSP), Education Source (EBSCOHost), MedLine (OvidSP), and CINAHL (EBSCOHost) (as per Table 1). Checking references lists from studies found throughout these databases also proved to be valuable to this search in that additional research could be identified and a saturation point (where no new research was found) could be reached. Finally, hand-searching of key journals aided in the identification of additional studies to ensure no studies were missed.

Table 1

### *Databases and Supplemental Sources*

<b>Databases</b>	<b>Supplemental</b>
<b>ERIC</b>	Grey literature: <ul style="list-style-type: none"> <li>• Government websites and documents relative to education;</li> <li>• Policy websites and documents relative to education</li> </ul>
<b>Education Source</b>	
<b>MedLine</b>	
<b>CINAHL</b>	

After selecting the databases most likely to yield results pertaining to my study, search terms were carefully selected to obtain the desired literature without unintentionally excluding

relevant articles. The research questions combined with background knowledge of key concepts guided the choice of terms. For this study, search terms were selected to exhaust concepts within three categories: healthcare, education, and linkage (see Table 2 for a list of search terms).

Table 2

*Search Strategy and Search Terms*

<b>Healthcare</b>	<b>Education</b>	<b>Linkage Terms</b>
<b>health professionals</b>	classroom teachers	collaborates/d
<b>allied health professionals</b>	general education teachers	collaboration
<b>physicians</b>	school-based educators	collaborative
<b>nurses</b>	teachers	shares/d work
	educators	sharing of work
<b>occupational therapists</b>	early childhood educators	
<b>speech language pathologists</b>	educational assistants	
<b>physiotherapists</b>		
<b>social workers</b>		
<b>psychologists</b>		

Searches included combinations of terms across these three categories using Boolean operators to enhance the search. To ensure the appropriateness, quality, and accuracy of my searches as well as eliminate any biases, I consulted the education and health sciences research librarians. Both possessed expertise in the scoping review methodology and were able to assist in developing terms and guiding the searches. I executed the searches in February 2021, and eventually, a saturation point at which further searching yielded no new results occurred and data collection was ceased. To sort the database searches, I used Google Sheets, a spreadsheet program that provided a means of organization. It also provided an additional safety feature as it

saved work on the web as opposed to a personal device so that it could be accessed from anywhere and aid in ensuring no loss of research takes place should a computer lose data on its hard drive. This program housed my search strategy (search terms and Boolean strings used - see Appendix A for search strategy), quantity of results, and data resulting from this stage of the review.

## Appendix A

### *Search Terms and Boolean Strings Used*

ERIC	Education Source	Medline
1 exp Allied Health Personnel/	1 DE "Allied health personnel" OR DE "Home health aides" OR DE "Occupational therapists" OR DE "Speech therapists"	1 exp Allied Health Personnel/
2 (allied adj2 health adj2 profession*).ti,ab.	2 (allied N2 health N2 profession*)	2 (allied adj2 health adj2 profession*).ti,ab.
3 (allied adj2 health adj2 personnel*).ti,ab.	3 (allied N2 health N2 personnel*)	3 (allied adj2 health adj2 personnel*).ti,ab.
4 (allied adj2 health adj2 staff*).ti,ab.	4 (allied N2 health N2 staff*)	4 (allied adj2 health adj2 staff*).ti,ab.
5 occupational therap*.ti,ab.	5 occupational therap' or OT	5 occupational therap*.ti,ab.
6 physical therap*.ti,ab.	6 physical therap*	6 physical therap*.ti,ab.
7 (speech adj3 patholog*).ti,ab.	7 (speech N3 patholog*)	7 (speech adj3 patholog*).ti,ab.
8 (speech adj3 therap*).ti,ab.	8 (speech N3 therap*)	8 (speech adj3 therap*).ti,ab.
9 (language adj3 patholog*).ti,ab.	9 (language N3 patholog*)	9 (language adj3 patholog*).ti,ab.
10 (language adj3 therap*).ti,ab.	10 (language N3 therap*)	10 (language adj3 therap*).ti,ab.
11 physiotherap*.ti,ab.	11 physiotherap* or physical therap*	11 physiotherap*.ti,ab.
12 or/1-11	12 S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9 OR S10 OR S11	12 or/1-11
13 School Teachers/	13 School Teachers/	13 School Teachers/
14 teacher*.ti,ab.	14 teacher*	14 teacher*.ti,ab.
15 educator*.ti,ab.	15 educator*	15 educator*.ti,ab.
16 13 or 14 or 15	16 S13 OR S14 OR S15	16 13 or 14 or 15
17 12 and 16	17 S12 AND S16	17 12 and 16

CINAHL					
1	(MH "Allied Health Personnel+")	7	(speech N2 patholog*)	13	School Teachers
2	(allied N2 health N2 profession*)	8	(speech N2 therap*)	14	teacher*
3	(allied N2 health N2 personnel*)	9	(language N2 patholog*)	15	educator*
4	(allied N2 health N2 staff*)	10	(language N2 therap*)	16	S13 OR S14 OR S15
5	occupational therap' or OT	11	physiotherap* or physical therap*	17	S12 AND S16
6	physical therap*	12	or/1-11		

### Stage III: Study Selection

Following the initial search, data was transferred from Google Sheets to Endnote, a similar program to Google Sheets that allows for the transfer of data into the screening software to take place. The large volume of data collected was then screened for relevance and reduced. The online screening software, *Covidence*, facilitated this process. Inclusion and exclusion criteria (Table 4), which eliminates studies that do not address the central research questions, was established by reviewing the abstracts of relevant studies identified in Stage II and populated into *Covidence*. These criteria ensured that consistent and replicable decision-making could be made and that only those articles which answered the research questions were marked for inclusion. Exact inclusion/exclusion criteria included those identified in Table 3. It is important to note, however, that inclusion criteria for this study did not consider the methodology (i.e., study design) or methodological rigour of the articles under review (Arksey & O'Malley, 2005; Levac et al., 2010). After a secondary screener and I completed the title and abstract screening, we engaged in a full-text review whereby we reviewed the remaining articles entirely to determine their suitability to the study.

Table 3

*Inclusion and Exclusion Criteria*

	<b>Inclusion criteria</b>	<b>Exclusion criteria</b>
<b>Publication date</b>	Published between 2000 and 2020 for all Canadian and international literature	Published before 2000
<b>Language</b>	Study is published in English	Study is published in a language other than English
<b>Document Type/Study Design</b>	Academic literature (empirical or review papers including systematic methodologies) and grey literature (publicly available reports, publications, proceedings of meetings, social and traditional media outputs)	Does not meet document type/study design criteria
<b>Country</b>	The scoping review will capture all Canadian- based as well as a broader international literature	No country will be excluded
<b>Population</b>	Allied health professionals (both male and female) in the sub-specialty of rehabilitation including speech-language pathology, occupational therapy, and physical therapy  School-based educators	Other types of allied health professionals, medical professionals, and educators

<b>Level</b>	All levels of professionals, including those still in practice	N/A
<b>Field/Discipline</b>	Allied health, health professions, education	Study in a field or discipline other than the listed criteria
<b>Collaboration</b>	All types of collaboration between professions listed above eligible	Study does not involve collaboration

For the final steps of this stage, a secondary screener, who is well-versed in the area of my topic and scoping review methodology, and I further checked the sources identified by *Covidence* in the title and abstract screening. We independently reviewed the sources for inclusion based on the pre-established inclusion/exclusion criteria. When disagreements arose between us regarding our opinions about a source's suitability for the study, we consulted one another to discuss and come to a final decision. Thereafter, I proceeded to complete a full-text review whereby I reviewed the remaining articles entirely as a final confirmation of their suitability to the study and to gather information about the topic in question.

#### **Stage IV: Charting the Data**

After all of the relevant literature for inclusion was identified, the charting stage began. Charting is the process of interpreting the data by sifting through, documenting, and sorting material according to key issues and themes. Considering it is an iterative process, charting allowed for the data-charting form to evolve with the researcher's growing familiarity with the study data. The data that was charted for this scoping review includes detailed information such as the study's authors, year of publication, study location and setting, the study objectives, type of publication, study design, data sources and collection methods, type of population under study, aims of the study, description of the collaboration, outcomes and impacts identified, other

important findings, and possibilities for further study. The charting form was created using a spreadsheet program, Google Sheets (see Appendix B).

## Appendix B

### *Data Extraction and Charting Form*

<b>Author (year), location</b>	<b>Publication type</b>	<b>Theme</b>
Anaby, Campbell, Missiuna, Shaw, Bennett, Khan, Tremblay, Kalubi-Lukusa, Camden (2018) Canada	Literature review	<ul style="list-style-type: none"> <li>• Mutual understanding</li> </ul>
Bailey (2018), US	Commentary	<ul style="list-style-type: none"> <li>• Proximity</li> </ul>
Barnes and Turner (2001), US	Empirical study	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Everyone involved</li> </ul>
Bauer, Iyer, Boon, Fore (2010), US	Brief report	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Value</li> <li>• Continued support</li> <li>• Time/resources</li> </ul>
Baxter, Brookes, Bianchi, Rashid, Hay (2009), UK	Empirical study	<ul style="list-style-type: none"> <li>• Time/resources</li> <li>• Mutual understanding</li> <li>• Frequent meetings</li> <li>• Continued support</li> </ul>
Christner (2015), US	Brief report	<ul style="list-style-type: none"> <li>• Proximity</li> <li>• Mutual understanding</li> <li>• Frequent meetings</li> </ul>
Flynn (2010), US	Brief report	<ul style="list-style-type: none"> <li>• Everyone involved</li> <li>• Mutual understanding</li> </ul>
Gallagher, Murphy, Conway, & Perry (2019), Ireland	Empirical study	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Continued support</li> <li>• Tracking student satisfaction</li> </ul>
Gallagher, Richards (2020), UK	Empirical study	<ul style="list-style-type: none"> <li>• Everyone involved</li> <li>• Mutual understanding</li> <li>• Value</li> </ul>
Glover, McCormack, Smith-Tamaray	Empirical study	
Gosselin, Sundeen (2019), US	Literature review	<ul style="list-style-type: none"> <li>• Everyone involved</li> <li>• Consistency</li> <li>• Frequent meetings</li> <li>• Proximity</li> <li>• Mutual understanding</li> </ul>
Hargreaves, Nakhoda, Mottay, & Sabramoney (2012), South Africa	Empirical study	<ul style="list-style-type: none"> <li>• Everyone involved</li> <li>• Mutual understanding</li> <li>• Less jargon</li> </ul>

Hartas (2004), UK	Empirical study	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Continued support</li> <li>• Proximity</li> </ul>
Hersh, O'Rourke, Lewis (2013), Australia	Brief report	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Everyone involved</li> </ul>
Hutton (2019), UK	Empirical study	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Consistency</li> </ul>
Kennedy and Stewart (2012), Australia	Empirical study	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Consistency</li> <li>• Frequent meetings</li> </ul>
Kohler (2016), UK	Empirical study	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Consistency</li> <li>• Frequent meetings</li> <li>• Proximity</li> </ul>
Leader-Janssen, Swain, Delkamiller, Ritzman (2012), US	Brief report	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Continued support</li> <li>• Everyone involved</li> </ul>
Leyden, Stackhouse, Szczerbinski (2011), UK	Empirical study	<ul style="list-style-type: none"> <li>• Everyone involved</li> <li>• Consistency</li> <li>• Continued support</li> <li>• Mutual understanding</li> <li>• Time/resources</li> </ul>
Majasic, Benson, Szucs (2015), US	Empirical study	<ul style="list-style-type: none"> <li>• Consistency</li> <li>• Proximity</li> </ul>
Miller (2002), US	Literature review	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Proximity</li> <li>• Consistency</li> </ul>
Nochajski (2002), US	Empirical study	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Proximity</li> <li>• Consistency</li> <li>• Time/resources</li> <li>• Frequent meetings</li> </ul>
Oosthuizen, Helena, Klop, Daleen, Visser, Monique (2015), South Africa	Commentary	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Continued support</li> </ul>
Patton, Hutton, MacCobb (2015), UK	Empirical study	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Proximity</li> <li>• Consistency</li> <li>• Frequent meetings</li> <li>• Time/resources</li> </ul>
Pena, Quinn (2003), Unidentified	Empirical study	<ul style="list-style-type: none"> <li>• Frequent meetings</li> <li>• Mutual understanding</li> <li>• Time/resources</li> </ul>
Powell and Sable (2001), US	Literature review	<ul style="list-style-type: none"> <li>• Mutual understanding</li> </ul>
Rens & Joosten (2014) Australia	Empirical study	<ul style="list-style-type: none"> <li>• Frequent meetings</li> <li>• Less jargon</li> </ul>
Santos (2012), US	Empirical study	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Consistency</li> </ul>

Shaughnessy, Sanger (2005), US	Empirical study	<ul style="list-style-type: none"> <li>• Everyone involved</li> <li>• Consistency</li> <li>• Continued support</li> <li>• Mutual understanding</li> <li>• Time/resources</li> </ul>
Silverman, Millspaugh (2006), US	Empirical study	<ul style="list-style-type: none"> <li>• Proximity</li> <li>• Frequent meetings</li> <li>• Consistency</li> <li>• Time/resources</li> <li>• Mutual understanding</li> </ul>
Starling, Munro, Togher, Arciuli (2012), Australia	Empirical study	<ul style="list-style-type: none"> <li>• Less jargon</li> <li>• Consistency</li> </ul>
Stearns (2017), US	Empirical study	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Continued support</li> </ul>
Suc, Bukovec, Karpljuk (2017), Slovenia	Empirical study	<ul style="list-style-type: none"> <li>• Everyone involved</li> <li>• Mutual understanding</li> <li>• Consistency</li> <li>• Continued support</li> <li>• Proximity</li> </ul>
Suleman, McFarlane, Pollock, Schneider, Leroy, Skoczylas (2014), Canada	Empirical study	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Frequent meetings</li> <li>• Proximity</li> </ul>
Suleman, McFarlane, Pullock, Schneider, Leroy (2013), Canada	Empirical study	<ul style="list-style-type: none"> <li>• Less jargon</li> <li>• Everyone involved</li> <li>• Mutual understanding</li> <li>• Time/resources</li> </ul>
Tancredi & Glasby (2020), Australia	Commentary	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Continued support</li> </ul>
The ASHA Leader (2014), US	Empirical study	<ul style="list-style-type: none"> <li>• Frequent meetings</li> <li>• Mutual understanding</li> <li>• Continued support</li> </ul>
Truong, Hodgetts (2017), Canada	Empirical study	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Frequent meetings</li> </ul>
Villeneuve (2009), Canada	Brief report	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Consistency</li> </ul>
Villeneuve & Hutchinson (2012), Canada	Commentary	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Continued support</li> <li>• Keeping a journal/log</li> </ul>
Watson, Bellon-Harn (2014), US	Commentary	<ul style="list-style-type: none"> <li>• Keeping a journal/log</li> <li>• Frequent meetings</li> <li>• Tracking student satisfaction</li> </ul>
Wilson & Harris (2018), Canada	Empirical study	<ul style="list-style-type: none"> <li>• Time/resources</li> <li>• Mutual understanding</li> <li>• Less jargon</li> </ul>
Wilson, McNeill, Gillon (2015), New Zealand	Empirical study	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Proximity</li> </ul>
Wilson, McNeill, Gillon (2017), New Zealand	Empirical study	<ul style="list-style-type: none"> <li>• Time/resources</li> <li>• Less jargon</li> <li>• Mutual understanding</li> </ul>

Wilson, McNeill, Gillon (2019), New Zealand	Empirical study	<ul style="list-style-type: none"> <li>• Time/resources</li> <li>• Mutual understanding</li> <li>• Frequent meetings</li> <li>• Continued support</li> </ul>
Young, Bowers (2018), US	Empirical study	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Proximity</li> <li>• Consistency</li> </ul>

## **Stage V: Collating, Summarizing, and Reporting the Results**

Levac et al. (2010) describe Stage V as the most extensive stage of the review. It involves analyzing the data, reporting the results, and applying meaning to those results. While scoping studies do not assess quality or “weight” of evidence, nor are their findings generalizable, they do utilize a descriptive numerical analytic framework and thematic construction to present a narrative account of the literature (Arksey & O’Malley, 2005). The descriptive numerical analysis (i.e., collating and summarizing) in this scoping study involved the presentation of the findings from Stage IV, followed by a discussion of themes. Tables and charts to map the literature were used so that familiarity with the data could be gained and so that the thematic construction could take place. I conducted my thematic analysis by hand which ensured care, consideration and identification of all frequently noted topics, ideas, and patterns of meaning that arose. Levac et al. (2010) also recommends that in this stage, the scoping review should address any practical implications that the findings may have for future research, practice, and policy. This methodological recommendation was included to not only solidify the comprehensive nature of this study, but also as it directly relates to this study's purpose making it an imperative inclusion.

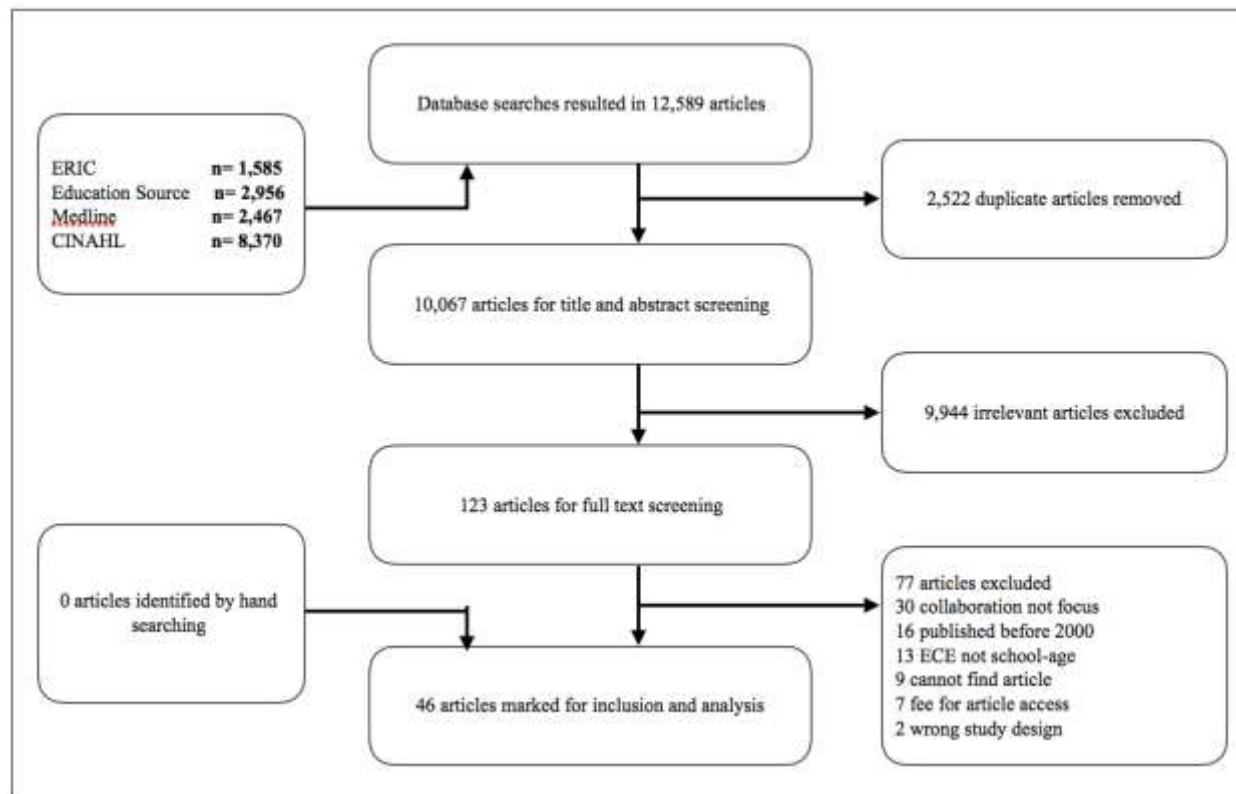
## **Findings**

### **Numerical Summary**

#### ***Screening***

Searches of four databases including ERIC, Education Source, Medline, and CINAHL yielded 12,589 articles for screening. Upon uploading them into *Covidence*, 2,522 articles were automatically identified and removed as duplicates. A secondary screener and I then screened 10,067 articles for inclusion/exclusion criteria based on their title and abstract. From this, we excluded 9,944 irrelevant articles, leaving 123 articles remaining for a full-text review. Of these, we omitted 77 articles based on several criteria including: a) 30 articles not having collaboration as its primary focus, b) 16 articles published before 2000 that initial screening did not address, c) 13 articles not including the intended population, d) 9 articles not found, e) 7 requiring a fee for access, and f) 1 study with an irrelevant study design, making it unusable for the context of this study. We then marked 46 articles for final inclusion and analysis. Analysis included both numerical and thematic as presented below. Figure 1 provides an overview of the study screening and selection process in the form of a flowchart.

Figure 1

*Study Screening and Selection Process Flowchart*

**Publication Year, Location, and Setting.** All 46 articles were published during or after the year 2000, with over three quarters (n=35) of the 46 published during or after the year 2010. The more currently published articles add to the relevancy of the research collected. Of the 46 articles, the largest number originated in the United States (n=19). The remaining articles included n=7 originating in Canada, n=6 in the UK, n=6 in Australia, n=3 New Zealand, n=2 in South Africa, n=1 in Ireland, n=1 in Slovenia, and n=1 was unidentified. The diverse origins of my research provided a global perspective by demonstrating not only how this topic is relevant across the world, but also provided an opportunity to study the unique outcomes and impacts that may differ from one place to the next. In terms of where these studies took place, over half

(n=24) were set in an elementary school (i.e., kindergarten up to and including grade six). N=5 were set in post-secondary education where students were completing their practical teacher and HP trainings, n=1 was set in a high school setting, n=1 in a special education institution, and remaining settings were unidentified (see Appendix C). This combination of settings provided insight into several areas: collaboration in education settings throughout the early years, collaboration throughout the educational lifespan, collaboration in educational institutions where students present with special educational needs, as well as collaboration in post-secondary settings that can further inform the aforementioned contexts.

## Appendix C

### *Publication Year, Location, and Setting*

<b>Authors</b>	<b>Publication Year</b>	<b>Location</b>	<b>Setting</b>
<b>Anaby, Campbell, Missiuna, Shaw, Bennett, Khan, Tremblay, Kalubi-Lukusa, Camden</b>	2018	Canada	Unidentified School
<b>Bailey</b>	2018	US	Elementary
<b>Barnes and Turner</b>	2001	US	Unidentified School
<b>Bauer, Iyer, Boon, Fore</b>	2010	US	Unidentified School
<b>Baxter, Brookes, Bianchi, Rashid, Hay</b>	2009	UK	Elementary
<b>Christner</b>	2015	US	Elementary
<b>Flynn</b>	2010	US	Unidentified School
<b>Gallagher, Murphy, Conway, &amp; Perry</b>	2019	Ireland	Elementary
<b>Gallagher, Richards</b>	2020	UK	Elementary
<b>Glover, McCormack, Smith-Tamaray</b>	2015	Australia	Elementary
<b>Gosselin, Sundeen</b>	2019	US	Elementary
<b>Hargreaves, Nakhoda, Mottay, &amp; Sabramoney</b>	2012	South Africa	Elementary
<b>Hartas</b>	2004	UK	Special Education School
<b>Hersh, O'Rourke, Lewis</b>	2013	Australia	Post-secondary
<b>Hutton</b>	2009	UK	Elementary
<b>Kennedy and Stewart</b>	2012	Australia	Elementary
<b>Kohler</b>	2016	US	Elementary
<b>Leader-Janssen, Swain, Delkamiller, Ritzman</b>	2012	US	Unidentified School

<b>Leyden, Stackhouse, Szczerbinski</b>	2011	UK	Unidentified School
<b>Majasic, Benson, Szucs</b>	2015	US	Unidentified School
<b>Miller</b>	2002	US	Elementary
<b>Nochajski</b>	2002	US	Elementary
<b>Oosthuizen, Helena, Klop, Daleen, Visser, Monique</b>	2015	South Africa	Post-secondary
<b>Patton, Hutton, MacCobb</b>	2015	UK	Elementary
<b>Pena, Quinn</b>	2003	Unidentified	Elementary
<b>Powell and Sable</b>	2001	US	Post-secondary
<b>Rens &amp; Joosten</b>	2014	Australia	Unidentified School
<b>Santos</b>	2012	US	Elementary
<b>Shaughnessy, Sanger</b>	2005	US	Elementary
<b>Silverman, Millspaugh</b>	2006	US	Elementary
<b>Starling, Munro, Togher, Arciuli</b>	2012	Australia	High
<b>Stearns</b>	2017	US	Unidentified School
<b>Suc, Bukovec, Karpljuk</b>	2017	Slovenia	Elementary
<b>Suleman, McFarlane, Pollock, Schneider, Leroy, Skoczylas</b>	2014	Canada	Post-secondary
<b>Suleman, McFarlane, Pullock, Schneider, Leroy</b>	2013	Canada	Post-secondary
<b>Tancredi &amp; Glasby</b>	2020	Australia	Unidentified School
<b>The ASHA Leader</b>	2014	US	Unidentified School
<b>Truong, Hodgetts</b>	2017	Canada	Unidentified School
<b>Villeneuve</b>	2009	Canada	Unidentified School
<b>Villeneuve &amp; Hutchinson</b>	2012	Canada	Elementary
<b>Watson, Bellon-Harn</b>	2014	US	Unidentified School
<b>Wilson &amp; Harris</b>	2018	Canada	Unidentified School
<b>Wilson, McNeill, Gillon</b>	2019	New Zealand	Elementary
<b>Wilson, McNeill, Gillon</b>	2017	New Zealand	Elementary
<b>Wilson, McNeill, Gillon</b>	2015	New Zealand	Elementary
<b>Young, Bowers</b>	2018	US	Elementary

### **Publication Type, Study Design, Sources of Data, and Data Collection Methods.**

There were four types of studies consisting of empirical articles (n=31), commentary articles (n=5), brief reports (n=6), and literature reviews (n=4). The empirical studies were generally mixed methods, whereby surveys and either a series of interviews and/or focus groups were conducted and both quantitative and qualitative data were considered. The sources of data

focused on either the perspective of the educator, the HP, or both in combination. There were also some perspectives of education and HP students in post-secondary training considered which provided insight into the outcomes and impacts of collaboration prior to embarking in the workplace as per Appendix D.

## Appendix D

### *Publication Type, Study Design, Sources of Data, and Data Collection Methods*

<b>Authors</b>	<b>Type of Publication</b>	<b>Study Design</b>	<b>Data Sources</b>	<b>Data Collection Methods</b>
<b>Anaby, Campbell, Missiuna, Shaw, Bennett, Khan, Tremblay, Kalubi-Lukusa, Camden</b>	Literature Review	Lterature Review	HPs	N/A
<b>Bailey</b>	Commentary	N/A	HPs	N/A
<b>Barnes and Turner</b>	Empirical Study	Survey	HPs	Survey
<b>Bauer, Iyer, Boon, Fore</b>	Brief Report	N/A	All	N/A
<b>Baxter, Brookes, Bianchi, Rashid, Hay</b>	Empirical Study	Survey	Teachers	Survey
<b>Christner</b>	Empirical Study	Qualitative	HPs	Survey
<b>Flynn</b>	Brief Report	N/A	Teachers	N/A
<b>Gallagher, Murphy, Conway, &amp; Perry</b>	Empirical Study	Qualitative	Teachers	Focus Groups
<b>Gallagher, Richards</b>	Empirical Study	Qualitative	HPs	Focus Groups
<b>Glover, McCormack, Smith-Tamaray</b>	Empirical Study	Mixed Methods	Teachers	N/A
<b>Gosselin, Sundeen</b>	Brief Report	Qualitative	Teachers	N/A
<b>Hargreaves, Nakhooda, Mottay, &amp; Sabramoney</b>	Empirical Study	Qualitative	HPs	Interview
<b>Hartas</b>	Empirical Study	Qualitative	Teachers	Focus Groups
<b>Hersh, O'Rourke, Lewis</b>	Empirical Study	Qualitative	Teachers	Focus Groups
<b>Hutton</b>	Empirical Study	Qualitative	HPs	Interview
<b>Kennedy and Stewart</b>	Empirical Study	Survey	Teachers	Survey
<b>Kohler</b>	Empirical Study	Qualitative	Teachers	Focus Groups
<b>Leader-Janssen, Swain,</b>	Commentary	N/A	Teachers	N/A

<b>Delkamiller, Ritzman</b>				
<b>Leyden, Stackhouse, Szczerbinski</b>	Empirical Study	Qualitative	Teachers	Interview
<b>Majasic, Benson, Szucs</b>	Empirical Study	Survey	Teachers	Survey
<b>Miller</b>	Empirical Study	Observational	HPs	N/A
<b>Nochajski</b>	Empirical Study	Survey	HPs	Survey
<b>Oosthuizen, Helena, Klop, Daleen, Visser, Monique</b>	Commentary	Survey	Teachers	Focus Groups
<b>Patton, Hutton, MacCobb</b>	Empirical Study	Mixed Methods	Teachers	Survey Focus Groups
<b>Pena, Quinn</b>	Empirical Study	Observational	Teachers	N/A
<b>Powell and Sable</b>	Literature Review	Lterature Review	HPs	N/A
<b>Rens &amp; Joosten</b>	Empirical Study	Mixed Methods	HPs	N/A
<b>Santos</b>	Brief Report	Observational	HPs	N/A
<b>Shaughnessy, Sanger</b>	Empirical Study	Mixed Methods	Teachers	Survey Interviews
<b>Silverman, Millspaugh</b>	Empirical Study	Observational	Teachers	N/A
<b>Starling, Munro, Togher, Arciuli</b>	Empirical Study	Experimental	Teachers	Interview
<b>Stearns</b>	Brief Report	N/A	Teachers	N/A
<b>Suc, Bukovec, Karpjuk</b>	Empirical Study	Qualitative	HPs	Focus Groups
<b>Suleman, McFarlane, Pollock, Schneider, Leroy, Skoczylas</b>	Empirical Study	Qualitative	Teachers	Survey
<b>Suleman, McFarlane, Pullock, Schneider, Leroy</b>	Empirical Study	Observational	Students	N/A
<b>Tancredi &amp; Glasby</b>	Commentary	N/A	HPs	N/A
<b>The ASHA Leader</b>	Brief Report	N/A	HPs	N/A
<b>Truong, Hodgetts</b>	Literature Review	Qualitative	Teachers	N/A
<b>Villeneuve</b>	Literature Review	Lterature Review	HPs	N/A
<b>Villeneuve &amp; Hutchinson</b>	Commentary	Qualitative	Teachers	Case Study
<b>Watson, Bellon- Harn</b>	Commentary	N/A	Teachers	N/A
<b>Wilson &amp; Harris</b>	Empirical Study	Qualitative	Teachers	Focus Groups
<b>Wilson, McNeill, Gillon</b>	Empirical Study	Observational	Students	N/A

<b>Wilson, McNeill, Gillon</b>	Empirical Study	Qualitative	HPs	Interview
<b>Wilson, McNeill, Gillon</b>	Empirical Study	Survey	Teachers	Survey
<b>Young, Bowers</b>	Empirical Study	Qualitative	Teachers	Interview

**Type of Educators, Type of HPs.** Several of the levels that the educators taught were unidentified, but of those identified, many were teachers in the primary setting with only n=3 in the middle school (junior) setting, and n=1 in the high school setting. Of the HPs, the majority of studies were based on collaborations between educators and speech-language pathologists (SLPs). Research showed that this type of HP was most commonly found in schools, specifically elementary schools, given the numbers of studies based on language acquisition and literacy skill development, especially within the early years. However, several studies included occupational therapists (OTs), and to a lesser extent, physical therapists (PTs). Some HPs were not identified as the studies that discussed collaborations between educators and HPs did not specify the type of HP. These studies were less concerned about collaborations with a particular HP and more on the perceptions educators had towards interprofessional collaboration, as well as documenting the ways in which educators say they benefit or could benefit from collaborative efforts with a range of HPs in general, as evidenced in Appendix E.

## Appendix E

### *Type of Educators, Type of HPs*

<b>Authors</b>	<b>Type of educators</b>	<b>Type of HPs</b>
<b>Anaby, Campbell, Missiuna, Shaw, Bennett, Khan, Tremblay, Kalubi-Lukusa, Camden</b>	Unidentified Teacher	SLPs
<b>Bailey</b>	Primary Teacher	SLPs
<b>Barnes and Turner</b>	Unidentified Teacher	OTs
<b>Bauer, Iyer, Boon, Fore</b>	Unidentified Teacher	SLPs
<b>Baxter, Brookes, Bianchi, Rashid, Hay</b>	Primary Teacher	SLPs
<b>Christner</b>	Primary Teacher	OTs
<b>Flynn</b>	Unidentified Teacher	SLPs

<b>Gallagher, Murphy, Conway, &amp; Perry</b>	Primary Teacher	SLPs
<b>Gallagher, Richards</b>	Primary Teacher	SLPs
<b>Glover, McCormack, Smith-Tamaray</b>	Primary Teacher	SLPs
<b>Gosselin, Sundeen</b>	Primary Teacher	SLPs
<b>Hargreaves, Nakhooda, Mottay, &amp; Sabramoney</b>	Junior Teacher	OTs
<b>Hartas</b>	Unidentified Teacher	SLPs
<b>Hersh, O'Rourke, Lewis</b>	Primary Teacher	SLPs
<b>Hutton</b>	Primary Teacher	OTs
<b>Kennedy and Stewart</b>	Primary Teacher	OTs
<b>Kohler</b>	Primary Teacher	SLPs
<b>Leader-Janssen, Swain, Delkamiller, Ritzman</b>	Unidentified Teacher	N/A
<b>Leyden, Stackhouse, Szczerbinski</b>	Unidentified Teacher	N/A
<b>Majasic, Benson, Szucs</b>	Unidentified Teacher	OTs
<b>Miller</b>	Primary Teacher	SLPs
<b>Nochajski</b>	Unidentified Teacher	N/A
<b>Oosthuizen, Helena, Klop, Daleen, Visser, Monique</b>	Unidentified Teacher	SLPs
<b>Patton, Hutton, MacCobb</b>	Primary Teacher	OTs
<b>Pena, Quinn</b>	Primary Teacher	SLPs
<b>Powell and Sable</b>	Unidentified Teacher	All
<b>Rens &amp; Joosten</b>	Unidentified Teacher	OTs
<b>Santos</b>	Unidentified Teacher	SLPs
<b>Shaughnessy, Sanger</b>	Primary Teacher	SLPs
<b>Silverman, Millspaugh</b>	Primary Teacher	OTs
<b>Starling, Munro, Togher, Arciuli</b>	Senior Teacher	SLPs
<b>Stearns</b>	Unidentified Teacher	PTs
<b>Suc, Bukovec, Karpljuk</b>	Primary Teacher	OTs
<b>Suleman, McFarlane, Pollock, Schneider, Leroy, Skoczylas</b>	Unidentified Teacher	SLPs
<b>Suleman, McFarlane, Pullock, Schneider, Leroy</b>	Unidentified Teacher	SLPs
<b>Tancredi &amp; Glasby</b>	Unidentified Teacher	
<b>The ASHA Leader</b>	Unidentified Teacher	SLPs
<b>Truong, Hodgetts</b>	Unidentified Teacher	OTs
<b>Villeneuve</b>	Unidentified Teacher	OTs
<b>Villeneuve &amp; Hutchinson</b>	Primary Teacher	OTs
<b>Watson, Bellon-Harn</b>	Primary Teacher	SLPs
<b>Wilson &amp; Harris</b>	Unidentified Teacher	OTs
<b>Wilson, McNeill, Gillon</b>	Primary Teacher	SLPs
<b>Wilson, McNeill, Gillon</b>	Junior Teacher	SLPs
<b>Wilson, McNeill, Gillon</b>	Junior Teacher	SLPs
<b>Young, Bowers</b>	Unidentified Teacher	SLPs

**Type of Collaboration, Study Objective.** The types of collaboration I identified that were presented within these studies was two-fold: active and perceptive. Both types generated a

relatively equal number of studies. I termed one type of collaboration as the ‘active’ model given that researchers gathered primary data through the use of participants on the topic of interprofessional collaboration via surveys, interviews, and focus groups. Researchers used this data to provide a firsthand narrative on how interprofessional collaboration is implemented and the benefits and drawbacks it brings forth based on personal experiences from both educators and HPs alike who were involved in an interprofessional collaborative setting or project. I termed the second type of collaboration as ‘perceptive’ as researchers remarked on either pre-existing literature about the successes and challenges of interprofessional collaboration, or a combination of this and primary data gathered from participants where they were surveyed and/or interviewed on only their opinions and perspectives of interprofessional collaboration, whether or not they were ever a part of its implementation. While interest may typically be in personal experiences of those who have participated in interprofessional collaboration, both types dually illustrate what interprofessional collaboration is, its importance, the benefits and challenges it holds, as well as perspectives from both a healthcare and educational standpoint.

The general objectives of such studies coincided with this two-fold approach. The studies that displayed an ‘active’ model of collaboration implemented interprofessionally collaborative pilot projects or followed pre-established interprofessional collaborative efforts already set in place by educational institutions. By contrast, the studies that displayed the ‘perceptive’ model of collaboration considered the perceptions of educators and HPs who had not participated in interprofessional collaboration previously but who were interested in doing so, or more indirectly, sought to determine what areas educators and HPs could benefit from in terms of assistance with regards to their students and patients which most commonly resulted in a request for interprofessional collaboration (see Appendix F). The ‘perceptive’ model was

insightful in the sense that it provided opportunities to learn about the trends mainly in the challenges/barriers related to collaboration, whereas the ‘active’ model generated more positive thoughts and comments from participants regarding the benefits that they learned about and experienced while in a collaborative role during an experience. Ultimately both sets of objectives provide a well-rounded approach and richness to understand the scope of interprofessional collaboration.

## Appendix F

### *Type of Collaboration, Study Objective*

<b>Authors</b>	<b>Type of Collaboration</b>	<b>Study Objectives</b>
<b>Anaby, Campbell, Missiuna, Shaw, Bennett, Khan, Tremblay, Kalubi-Lukusa, Camden</b>	Active	To synthesize current evidence about principles for organizing and delivering interdisciplinary school-based support services for students with disabilities and ascertain useful strategies for implementation of principles in the school setting.
<b>Bailey</b>	Active	To share evidence-based methods for provision of SLP services in the classroom.
<b>Barnes and Turner</b>	Both	To describe collaboration practices between teachers and OTs in the school setting, how these relate to IEP objectives, and explore teachers' perceptions of OT contributions to student skill development.
<b>Bauer, Iyer, Boon, Fore</b>	Active	To provide 20 ways for classroom educators to collaborate with SLPs.
<b>Baxter, Brookes, Bianchi, Rashid, Hay</b>	Perceptive	To investigate the perceptions of school staff who work with students with communication needs regarding SLP services in schools, including addressing any issues with the current service that needed to be addressed for future service planning.
<b>Christner</b>	Perceptive	To determine whether completion a web-based educational series reviewing the role of the OT would make elementary teachers report a greater understanding of the OT

		and present a willingness to collaborate with an OT to address the students needs in the educational process.
<b>Flynn</b>	Active	To provide insight as to how SLPs can be utilized within the school-system and classroom while working alongside teachers and having both benefit one another.
<b>Gallagher, Murphy, Conway, &amp; Perry</b>	Perceptive	To engage key stakeholders in the co-design of their ideal speech-language therapy service and support in school through AI.
<b>Gallagher, Richards</b>	Perceptive	To work with stakeholders (i.e., SLTs, teachers, parents) to co-design an ideal speech therapy program in an effort to develop a conceptual model that could be used in future when working with these populations.
<b>Glover, McCormack, Smith-Tamaray</b>	Perceptive	To investigate the needs of educators and HPs and their preferences for service delivery when working with mainstream, primary school-aged children with speech difficulties.
<b>Gosselin, Sundeen</b>	Active	To identify obstacles and strategies spec ed teams can use to improve communication and collaboration.
<b>Hargreaves, Nakhooda, Mottay, &amp; Sabramoney</b>	Perceptive	To explore collaboration between OTs and school teachers in junior primary mainstream schools and factors that are hindering them.
<b>Hartas</b>	Perceptive	To examine SLTs' and teachers' perceptions of collaboration with other colleagues at a school that caters to students with special educational needs in language in an effort to determine factors that hinder and facilitate collaboration.
<b>Hersh, O'Rourke, Lewis</b>	Active	To report on an IP learning opportunity to explore and learn about each other's role and work through cases.
<b>Hutton</b>	Active	To describe the outcome of OT intervention in two primary schools with the aim of increasing knowledge/skills in teachers and TAs.
<b>Kennedy and Stewart</b>	Perceptive	To explore OTs perceptions and experiences of collaboration with school teachers in providing services to primary level students.

<b>Kohler</b>	Active	To explore 1st and 2nd grade teachers' knowledge of oral language development and effective interventions for at-risk students with potential language delays. The primary goal was for teachers and SLPs to collaborate to create effective oral language interventions for students who are at-risk for a language delay.
<b>Leader-Janssen, Swain, Delkamiller, Ritzman</b>	Active	To provide general education teachers with specific information regarding collaborative roles and responsibilities of several team members involved in the education of students with disabilities.
<b>Leyden, Stackhouse, Szczerbinski</b>	Active	To have teachers implement a whole-school approach (WSA) to strengthen speech/language communication in students.
<b>Majasic, Benson, Szucs</b>	Perceptive	To investigate perceptions on the role of OT in the educational system.
<b>Miller</b>	Active	To enhance the nature and level of speech/language therapy for students with difficulties in language comprehension which significantly affected their access to the curriculum. A secondary goal was for teachers and SLPs to collaborate and gain a greater insight of each the roles they play for one another and for students.
<b>Nochajski</b>	Perceptive	To gain insight on the perspectives all educators and HPs had towards collaboration.
<b>Oosthuizen, Helena, Klop, Daleen, Visser, Monique</b>	Perceptive	To explore perceptions and experiences of teachers, SLT students, and tutors involved in IP collaboration for intervention of literacy difficulties.
<b>Patton, Hutton, MacCobb</b>	Active	To investigate the process of collaborative practice using findings of a study involving students with a developmental disability, their teachers, and an OT in a collaborative application of a handwriting teaching method.
<b>Pena, Quinn</b>	Active	To share outcomes of a a collaboration model developed for a Head Start program
<b>Powell and Sable</b>	Active	To use the Project TEAM (multi-disciplinary education and mentoring) model for rehab/related service professions and educators

		in an effort to have all professions gain knowledge and training experiences by working together.
<b>Rens &amp; Joosten</b>	Perceptive	To study the lived experiences of teachers and OTs working in the school-based OT program to determine if it could inform collaborative practice both in schools and in the community.
<b>Santos</b>	Perceptive	To provide a personal account from an SLP that brings us into her world and allows us to see how teachers and SLPs can collaborate effectively - what this means, looks like, how it can be executed, and the host of benefits.
<b>Shaughnessy, Sanger</b>	Perceptive	To examine perceptions of kindergarten educators surrounding literacy/language development, roles and responsibilities of SLPs, and teacher/SLP interventions in the classroom.
<b>Silverman, Millspaugh</b>	Active	To describe the joint efforts between educators and OTs when sharing physical space (i.e., a classroom). Proximity encourages/promotes collaboration. Arose from an issue with a shortage of space within the school.
<b>Starling, Munro, Togher, Arciuli</b>	Active	To evaluate the efficacy of a collaboration intervention where an SLP taught teachers how to modify their oral and written instruction to assist their students with language impairments.
<b>Stearns</b>	Perceptive	To provide a firsthand perspective of how a PT/teacher (who has both designations) notices both complement one another and need to be understood by both parties in order to have effective collaboration.
<b>Suc, Bukovec, Karpljuk</b>	Perceptive	Purpose is two fold: 1) To examine primary teachers' experiences and perspectives of collaboration within the educational context, and 2) To examine OTs who work with spec ed students and their experiences and perspectives collaborating with teachers.
<b>Suleman, McFarlane, Pollock, Schneider, Leroy, Skoczylas</b>	Active	To determine the effects of an IPE experience on student teachers and SLPs' awareness and understanding

		of models of specialized delivery in schools.
<b>Suleman, McFarlane, Pullock, Schneider, Leroy</b>	Active	To examine the efficacy of an interprofessional educational experience between student SLPs and student teachers - primarily in an effort to correct profession-specific terminology).
<b>Tancredi &amp; Glasby</b>	Active	To provide 10 tips for interprofessional collaboration between SLPs and educators.
<b>The ASHA Leader</b>	Active	To provide a statistical/data overview of how SLPs are now using curricula in their design of their work with students and how they are collaborating with teachers to ensure the success of student education all around.
<b>Truong, Hodgetts</b>	Perceptive	To explore teacher perceptions toward OT roles and services.
<b>Villeneuve</b>	Perceptive	To synthesize and critically analyze the literature on collaborative consultation in school-based OT in an effort to provide program administrators with direction for examining decision making regarding service delivery in their districts.
<b>Villeneuve &amp; Hutchinson</b>	Active	To describe the nature of collaboration in two cases of school-based OT therapy service delivery programs for students with a developmental disability.
<b>Watson, Bellon-Harn</b>	Active	To use the RTI Tier 2 model so that SLPs and educators can develop strong collaborative partnerships. This article also provides steps for development and implementation of this program for kindergarten.
<b>Wilson &amp; Harris</b>	Perceptive	To explore how teachers perceive OT services delivered using the P4C model to support students with a range of exceptionalities.
<b>Wilson, McNeill, Gillon</b>	Active	To examine whether students' speech and literacy skills were impacted (either positively, negatively, or neutrally) when student SLPs and student teachers worked together during an IPE initiative.
<b>Wilson, McNeill, Gillon</b>	Active	To explore how student SLTs and student teachers develop competency for collaborative

		practice when co-working during practical placements to support students' speech and literacy development.
<b>Wilson, McNeill, Gillon</b>	Perceptive	To examine the knowledge and perceptions of student educators and SLPs in the areas of language concepts, literacy curriculum, service delivery, and professional collaboration.
<b>Young, Bowers</b>	Perceptive	To examine what (if any) team-based approaches were being conducted among professionals who focus on literacy/language development in elementary school settings.

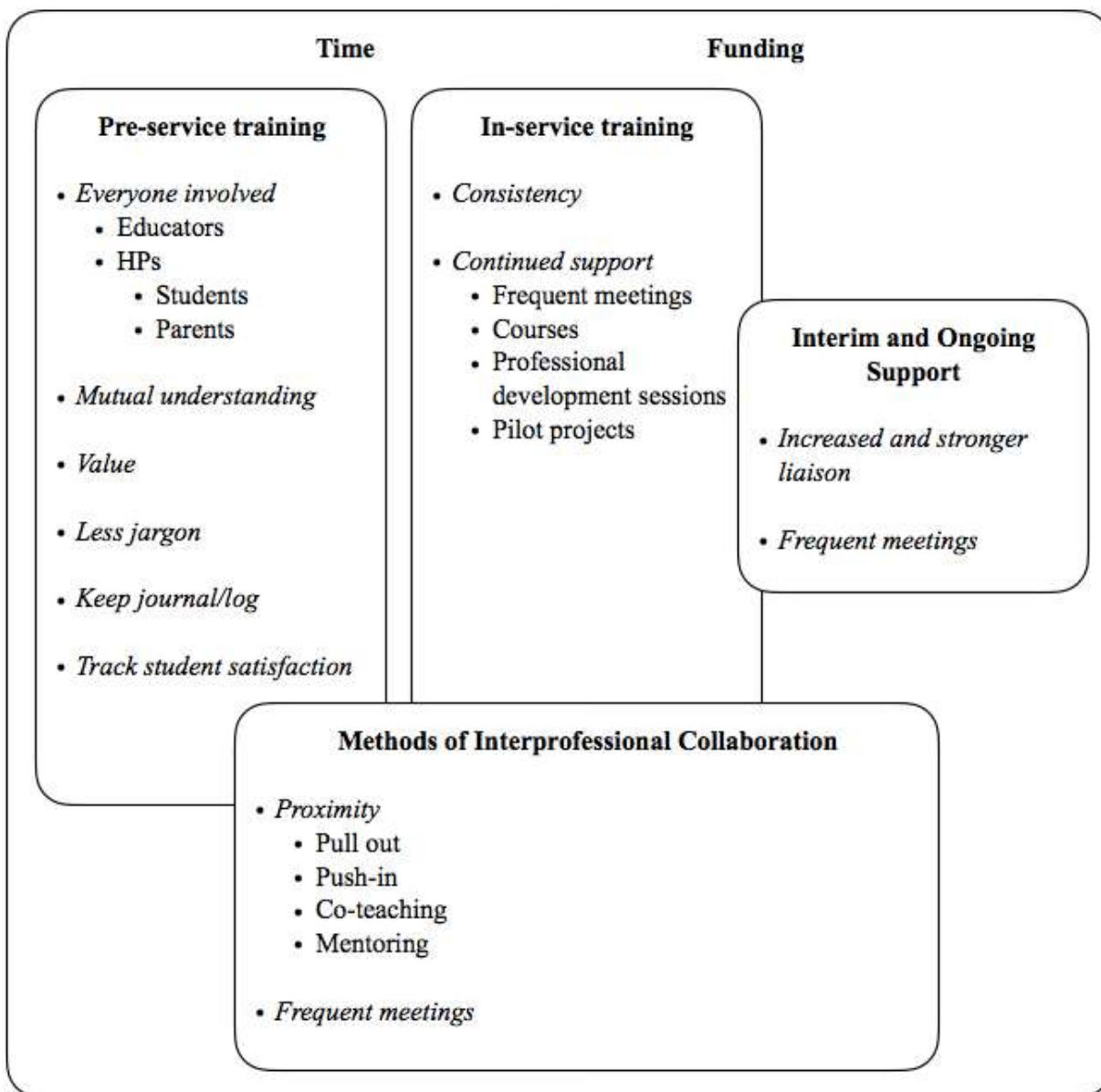
### Thematic Summary

Through my thematic analysis, I found two overarching themes that govern the implementation of interprofessional collaboration based on the logistical factors at an organizational level : 1) time and 2) funding. In addition to these, two major themes and one minor theme emerged from the majority of the literature that guide current and future interprofessional collaborative practices. The first major theme and its corresponding sub-themes included : *pre-service training* whereby a) everyone is involved, b) there is a mutual understanding between and of educators and HPs, c) both educators and HPs feel valued in their positions for their work, d) there is less sophisticated profession-specific jargon which can in turn open further dialogue between both teams of professionals, and e) a journal or frequent log can be kept to track the successes and challenges of and suggestions for the collaborative efforts as well as of student satisfaction. The second major theme and its corresponding sub-themes included *in-service training* whereby a) educators and HPs maintain consistency in their roles and responsibilities as well as for students educationally, and b) provide continued support for all. Methods of how this interprofessional collaboration could be implemented were also discussed, noting a) proximity (i.e., how closely, in what ways, and how frequently educators

and HPs work together) and b) frequent meetings as essential to successful interprofessional collaboration. Finally, I extracted a minor theme from the literature with suggestions for current and ongoing implementation of interprofessional collaboration which suggested its own sub-themes including: a) increased and stronger liaison in schools and b) frequent meetings to establish and build upon a foundation that will foster further interprofessional collaboration.

While the overarching and major themes serve as explicit topics found within the literature, the sub-themes and minor theme derived from the literature as supporting concepts and focused the scope of the study. A mapping of the thematic structure is presented in Figure 2.

Figure 2

*Thematic Structure****Overarching themes***

**Time and Funding.** The most dominant themes that emerged from the literature were related to time and funding. While these themes were prevalent within the whole body of literature, they constituted a primary topic of discussion in 10 of the 46 articles (Shaughnessy & Sanger, 2005;

Bauer et al., 2010; Hargreaves et al., 2012; Suleman, et al., 2013; Hartas, 2004; Gosselin & Sundeen, 2019; Santos, 2012; Nochajski, 2002; Baxter et al., 2009; Suleman et al., 2014). As with most projects and endeavours, time and funding are necessary for appropriate and effective education and execution of work, as well as for reflecting on, documenting, and reporting the successes and challenges along the way. This literature highlighted how both educators and HPs not only require time to participate in the collaborative efforts, regardless of the length or complexity of the collaboration, but so too do they also require time to learn about interprofessional collaboration and of one another's roles and responsibilities prior to engaging in collaboration. It is important that both parties understand the expectations and the value of the interprofessional collaboration taking place and can also view it as a meaningful experience for themselves and for their students and patients respectively. Similarly, funding is necessary to compensate HPs for their work within educational institutions, for both educators and HPs to take on additional responsibilities if necessary, as well as for both educators and HPs engaging in professional development opportunities throughout the collaborative process. However, the time required to work together and funding necessary to support all aspects of interprofessional collaboration are logistical factors generally governed by the educational institutions at an organizational level. Therefore, those involved are urged to engage in interprofessional collaborations, and educational leaders responsible for bringing forth change to educational institutions are urged to consider time and funding when developing opportunities for interprofessional collaboration. Failing to do so was noted that it could result in poor execution of interprofessional collaboration, disinterest in or avoidance of engaging in interprofessional collaboration, as well as added stress, and in some cases, burnout (Shaughnessy & Sanger, 2005; Bauer et al., 2010; Suleman et al., 2013; Hartas, 2004; Gosselin & Sundeen, 2019).

### ***Major Themes***

The overarching themes had a significant impact on the three major themes: 1) pre-service training, 2) in-service training, and 3) methods of collaboration (within both pre-service and in-service training). These three themes were found within the literature as current and suggested models of collaboration and inform future delivery of collaboration as presented below.

**Pre-service Training.** Pre-service training was found within the literature as a prelude to in-service training. This type of training, as Wilson et al. (2015) denotes engaging in, and at the very least, learning about interprofessional collaboration and the roles and responsibilities of those involved within it in post-secondary schooling and practica prior to joining the workforce. This type of training has been established in some post-secondary institutions within the educational and healthcare disciplines, as exemplified within the research of Powell and Sable (2001), Suleman et al. (2013), Oosthuizen et al. (2015), Hersh et al. (2013), Young & Bowers (2018). Based on the advocacy of educators and HPs and as a result of the growing interest and need to understand interprofessional collaboration and all involved, researchers suggested implementing pre-service training in addition to in-service training.

As I analyzed the literature, several sub-themes emerged that were addressed within the scope of the major theme of pre-service training specifically. These included: a) involving everyone who would be involved in interprofessional collaboration (Leyden et al., 2011; Shaughnessy & Sanger, 2005; Powell & Sable, 2001; Anaby et al., 2018; Hargreaves et al., 2012; Suleman et al., 2013; Flynn, 2010; Barnes & Turner, 2001; Leader-Janssen et al., 2012; Suc et al., 2017; Hersh et al., 2013; Gosselin & Sundeen, 2019), b) generating a mutual understanding of all those involved in interprofessional collaboration (which was prevalent

across the whole body of literature), c) fostering a sense of value for each professionals' positions throughout collaborating interprofessionally (Bauer et al., 2010; Gallagher & Richards, 2020), d) diminishing sophisticated profession-specific jargon (Rens & Joosten, 2014; Hargreaves et al., 2012; Suleman et al., 2013; Wilson & Harris, 2018; Wilson et al., 2017; Starling et al., 2012), and to a lesser extent e) keeping a journal/log in an effort to track successes and challenges and student satisfaction (Watson & Bellon-Harn, 2014; Gallagher et al., 2019; Villeneuve & Hutchinson, 2012). These sub-themes brought forth an understanding of the importance and benefits that pre-service training can have on professionals interested in collaborating interprofessionally and were the motivating support behind a pre-service training model.

**In-service Training.** The delivery of in-service training is well-known and commonly referred to throughout the literature as this model is currently what educators and HPs engage in. In-service training includes all forms of interprofessional collaboration (i.e., collaboration in the form of courses, professional learning, and pilot projects, as well as training about what collaboration is and ways to engage in it) between educators and HPs while in the workplace exclusively, in addition to and separate from pre-service training and other additional professional development educators and HPs participate in collaboratively or otherwise (Nochajski, 2002). The ways interprofessional collaboration is delivered is considered essential for two reasons primarily: a) it works to maintain consistency in provision of services from both the educator(s) and HP(s) so students and patients respectively receive care and education in a way that does not deviate from one professional to the next (Leyden et al., 2011; Villeneuve & Hutchinson, 2012), and b) it provides continued support for both professionals (educators and HPs) and students alike through i) frequent meetings that address progress, successes,

challenges, and/or concerns, as well as ii) courses, iii) professional development sessions, and iv) pilot projects that test different, better, and innovative ways to collaborate for the benefit of all involved (Leyden et al., 2011; Villeneuve & Hutchinson, 2012; The ASHA Leader, 2014; Suc et al., 2017; Miller, 2002; Stearns, 2017; Suleman et al., 2014; Kohler, 2016; Suleman et al., 2013; Wilson et al., 2017). While the sub-themes that were addressed in pre-service training also applied during in-service delivery, the two aforementioned themes were most common to in-service training.

*Methods of Collaboration.* While literature revealed that educators and HPs engaged in interprofessional collaboration both pre-service and in-service, the methods of engagement in interprofessional collaboration remained consistent. Proximity (or the how closely educators and HPs worked interprofessionally) was most commonly used and described in the literature (Powell & Sable, 2001; Suleman 2013; Wilson et al., 2019; Villeneuve & Hutchinson, 2012; Suc et al., 2017; Silverman & Millspaugh, 2006). Several studies showed that educators and HPs often engage in “pull-out” models whereby HPs take children from the classroom and assess and work with them in a separate space such as a library or office (Flynn, 2010; Gosselin & Sundeen, 2019). Although the educator(s) work with such students daily, the extra support they require from an HP has often necessitated being pulled away to a segregated location to receive support and assist the children in remaining focused on the task at hand. However, while the intent is for the educator and HP to communicate, these children often return to the classroom with valuable knowledge and skills that is infrequently applied and practiced as their educator(s) often do not receive information on what the children learned or strategies of how to maintain consistency in instruction (Villeneuve & Hutchinson, 2012; Gosseli & Sundeen, 2019). As a result, educators may feel as though their students are not progressing or are not responding well to their

instruction because of the differences and inconsistencies in instruction. Similarly, reporting on students' progress can prove to be difficult as well given that, with these models, communication and collaboration between educators and HPs tends to be limited or even non-existent.

In other and often newer models of interprofessional collaboration, “push-in” models are apparent. Here, both educators and HPs work in conjunction with one another to deliver curricula, assess progress, provide support, and communicate with students, parents/guardians, and other staff (Shaughnessy & Sanger, 2005; Hargreaves et al., 2012; Oosthuizen et al., 2015; Hersh, et al., 2013; Young & Bowers, 2018). These models typically facilitate educators and HPs co-teaching and mentoring one another (Powell & Sable, 2001; Bailey, 2018; Anaby et al., 2018; Gosselin & Sundeen, 2019). As Leyden et al., (2011) describe, their research observed a SLP having a corner of the classroom dedicated to speech language support and therapy sessions. This corner consisted of the SLP's office space, as well as supporting work to extend or support student learning, tools such as posters, flashcards, and manipulatives for increased language acquisition, and an assortment of other helpful items that foster greater student learning in language development. Other researchers such as Shaughnessy & Sanger (2005) also denote that having a SLP in the classroom also promotes collaboration between educator and HP, provides consistency in support to the students they typically assess, and also allows HPs to provide support to all students throughout the classroom, which ultimately assists both students and educators alike. While “push-in” models are generally less common, the literature reviewed in this study they are possible and can be valuable.

Frequent meetings among educators and HPs are also discussed largely throughout the body of literature in both pre-service and in-service delivery but specifically focus on in-service delivery. This finding suggests that while communication is essential to all forms of

collaboration (Baerg et al., 2012), including during pre-service models of interprofessional collaboration, it is evident that having ongoing and frequent communication once in the workplace is, although sometimes difficult, strongly encouraged in an effort to demonstrate its importance in fostering effective current and future work among the professions and students alike. Through these meetings, educators and HPs are able to ensure understanding in one another's perspectives and the work that they do, as well as share ideas and strategies to support student development and progress.

### *Minor Themes*

**Interim and ongoing support.** Although strong delivery of pre-service training (where educators are collaborating during their post-secondary education placements) and in-service training (where educators and HPs are licensed and working within their fields) are goals of interprofessional collaboration, literature reveals that these are not happening as often and to the extent they should. Nonetheless, much can still be done in the interim (while there is not a strong delivery of pre- and in-service training models) anywhere there is an absence of these trainings to provide ongoing support that can be carried into more formal and structured in-service and pre-service training. Some research showcased that strengthening liaisons between educators and HPs through resource educators and administrators, for example, were instrumental in support of interprofessionnel collaboration (Suleman et al., 2014). Similarly, another helpful strategy included having frequent meetings with resource educators and administrators, or initiating brief but frequent meetings between educators and HPs. While the need for time for educators and HPs to engage in frequent meetings and communicate with liaisons still largely prevails (and potentially funding if additional responsibilities and/or time beyond working hours is necessary

or required), the findings support the aforementioned interim strategies that work towards bringing forth and strengthening interprofessional collaboration among educators and HPs.

### **Discussion**

Interprofessional collaboration, specifically among school-based educators and HPs, appears to be a global topic of interest to researchers in the disciplines of both education and healthcare. This showcases how it is not exclusively a North American or western education issue, but rather one that we are seeing intercontinentally as schools continue to become more inclusive environments. While the literature presents interprofessional collaboration as multifaceted in nature (Bailey, 2018; Watson & Bellon-Harn, 2014), it also demonstrates the possibilities for inclusion of HPs in education, while pilot projects from across the world highlight how it can be achieved (Miller, 2002). It is clear that school-educators and HPs are interested in collaborating interprofessionally. Based on the literature surrounding pre-service collaborative models, many educational institutions are also willing to listen and implement opportunities for educators and HPs to learn about and participate in interprofessional collaboration. Ultimately, the literature on both pre-service and in-service training discuss the many methods for both future and current implementation, and offer suggestions of how we can gradually and effectively promote and deliver interprofessional collaboration among school-based educators and HPs.

In terms of the time frame of literature selected for review, a sense of relevancy was necessary to outline the most current scope of interprofessional collaboration among educators and HPs. As such, the inclusion criteria included literature from the year 2000 onwards given it was more likely to contain the most up-to-date quantitative data and qualitative insight. While studies from prior to 2010 (i.e., 2000-2009 inclusively) may prove to have a more outdated

pedagogical approach considering how evolutionary education has been in the last few years, these studies still proved to cover relevant issues and provided several insightful suggestions for current and future research and practices.

While both educators and HPs equally advocate for increased collaborative opportunities, literature identified that the primary sources of data were coming from healthcare-related journals and researchers regarding how HPs can interact with educators. The literature lacked in research focused on how educators can interact with HPs and benefit from their expertise and support. In the literature found, a few HPs also indicated that educators seemed disinterested in the support from HPs (Leyden et al., 2011), though it was not always evident as to why. Some speculation is that time necessary for interprofessional collaboration is a deterrent to educators (Leyden et al., 2011) while others perceive a potential power imbalance and fear the possibility of not being heard and/or not receiving appropriate support. There is a possibility that educators' apparent disinterest in interprofessional collaboration could be as a result of little exposure to partaking in research that outlines the benefits of interprofessional collaboration and HPs. Further research on this matter is needed to determine educators' perspectives and garner a greater understanding of this aspect of interprofessional collaboration.

While there are several HPs that work with educators in schools, the HPs this study focused on specifically are known as allied health professionals (AHPs) and constitute a large network of external professionals who are most likely to engage in interprofessional collaboration with educators given the nature of their rehabilitative work. The three HPs included were speech-language pathologists (SLPs), occupational therapists (OTs), and physical therapists (PTs). However, there were very few studies that incorporated the voices of OTs and PTs, and rather a strong trend toward the perspectives and research centred around SLPs. Interestingly, the

majority of studies also took place in elementary settings (n=24) which tends to be where much of the therapeutic services take place, especially with regards to children struggling with learning to read, write, speak, and understand language in general. In 2001, the American Speech-Language-Hearing Association (ASHA) published an article indicating the roles and responsibilities of SLPs. It explained how SLPs contribute important information and play an extremely instrumental role in literacy acquisition and development for young children as they can design and implement programs and intervention strategies that directly assist students and their teachers (Shaughnessy and Sanger, 2005, pg. 68). As such, the findings suggest that while the heightened presence of SLPs in the data were easier to locate and survey and interview, it also does not seem unreasonable to assume SLPs may also be more prominent HPs within the school systems. Nonetheless, it would still be helpful to hear OT and PT perspectives as their insight and strategies could be equally valuable in achieving effective interprofessional collaboration.

The types of collaboration presented in the literature comprised both ‘active’ and ‘perceptive’ collaboration. ‘Active’ referenced the empirical research it contained based upon surveys, interviews, and focus groups with educators and HPs. This firsthand narrative from both educators and HPs was significant to the findings of the literature as it provided insight beyond the syntheses of literature found throughout the ‘perceptive’ literature. Moreover, the ‘active’ model built upon the significant ‘perceptive’ literature and provided a voice to educators and HPs involved (or hoping to be involved) in interprofessional collaboration. However, despite the active studies including personal perspectives, some of these studies utilized surveys exclusively. Shaughnessy and Sanger (2005) explain that surveys were used as a result of being the most accessible for busy educators and HPs – surveys provide an opportunity to share information

quickly without having to schedule and take time for interviews, focus groups, and other forms of data collection. While surveys are thus highly considerate of their time, the homogeneity of the survey sample and the data collected from the survey could be limited given the common close-ended nature of surveys in general. While some surveys provide an opportunity to reflect in short- or long-answer format where individuals like educators and HPs can provide more in their response, their responses are often not as detailed and thorough as what they may be in a verbal conversation. In interviews and focus groups, for example, others may tease out further information or prompt other points of discussion to encourage extraction of information. This being said, some researchers including Gallagher, Richards (2020), Wilson & Harris (2018), Hartas (2004), Gallagher, Murphy, Conway, & Perry (2019), Oosthuizen, Helena, Klop, Daleen, Visser, Monique (2015), Suc, Bukovec, Karpljuk (2017), Hersh, O'Rourke, Lewis (2013) utilized focus groups that combined both educators and HPs in a manner through which they were able to speak about, with, and to one another specifically. This could also prove to be limiting given that the educators and/or HPs may withhold valuable perspectives so as not to share anything that could be negative or detrimental to their work with one another.

In summary, several short-term outcomes and long-term impacts of interprofessional collaboration were identified within the literature, many of which were the same. That is, several of the short-term educators had a sense of longevity in that they became or had the potential to become impactful long-term. Ultimately, throughout the findings, we were able to understand how interprofessional collaboration among school-based educators and HPs can be beneficial now and in the future, with outcomes and impacts that coincide and work to support one another immensely. We learned that time and funding are paramount to all forms of collaboration taking place. Specifically, in pre-service training, the literature showed that allowing everyone to be

involved provides a mutual understanding and a strong sense of value for oneself and for one another. It also showed that working collaboratively also provides an opportunity to grow professionally and personally while diminishing or even completely eliminating barriers to communication, such as by reducing the amount of profession-specific jargon and making communication for accessible. Additionally, literature suggested that by keeping a journal or frequent log of the collaborative strategies that were beneficial or acted as hinderances, the successes and challenges, and all progress, both educators and HPs can track their own and student satisfaction and ultimately work toward their shared goal of strengthening language acquisition and development. While this can be highly demanding of educators and HPs and their time, one that is used for the purpose of brief documentation where information can be relayed between educators and HPs proves to be an effective form of collaboration. In in-service development, having educators and HPs collaborate interprofessionally also creates consistency namely for the students so that instruction and opportunities for knowledge and skill application and practice do not deviate from one supporting professional to the next. This also brings forth (or is brought forth) by frequent meetings to discuss progress, successes, and challenges of both the professional and the student to ensure all are supported and working toward generating the greatest academic, professional, and personal success possible. Additionally, the proximity of collaboration is essential to consider in fostering the greatest success in collaborating interprofessionally. That is, adopting a 'pull-out' model is an important avenue with which to begin, but moving toward a 'push-in' model whereby HPs are incorporated as part of the classroom and school community is vital to the greatest success when collaborating interprofessionally. While time and funding do play large factors in how educators and HPs can collaborate interprofessionally, in the interim, employing these as many of these strategies as

possible in combination with strengthening liaisons in schools can contribute to bringing forth collaboration more immediately which should ultimately work towards generating interprofessional collaboration among school-based educators and HPs long-term.

### **Limitations**

While this scoping study was comprehensive in nature, there is a possibility that I did not gather all potential literature on the topic of interprofessional collaborations between educators and HPs that could have proved to be of value. Had I included additional or different search terms and further searched within other databases, I may have generated further studies which could have potentially even altered my findings. I also limited my scoping review to studies that were published in English. While I eliminated a few studies at the title and abstract screening stage that were not written in English, there is a possibility that these studies may have been relevant. Similarly, I considered research from the year 2000 onward. I excluded several studies that were published before this in an effort to maintain currency; however, studies from prior to 2010, for example, may also not align with current pedagogies so it is possible that those from before 2000 were as relevant to those I did include. In addition, my search terms regarding HPs specifically focused on rehabilitation professionals, including speech language pathologists, occupational therapists, and physical therapists. These health professionals are known to be more prominent in their work with students in schools and as such, may be more likely to collaborate with educators. Though these search terms refined my search, they also eliminated other HP voices, such as school psychologists or school nurses, who may also provide insight into interprofessional collaborative efforts. Further to this, searches yielded mostly elementary-based studies. Though some of the findings could be generalizable, more research is needed in middle and high school settings to determine how interprofessional collaboration could benefit all

educators across all divisions. Finally, the two types of collaboration — active and perceptive — may not be as equally balanced within the literature. Although the ‘perceptive’ studies are easier to gather and do provide support for the implementation of interprofessional collaboration, the ‘active’ studies tend to hold more weight as they are based on firsthand experiences and primary data and not centred exclusively on personal opinion with little to no experience in interprofessional collaboration.

### **Conclusion**

This study not only contributes to the literature on interprofessional collaboration, with specific regards for collaboration between school-based educators and HPs, but it also provides directives for educators and HPs who are interested in working collaboratively with one another. It explains how current interprofessional collaborative efforts are taking place, discusses factors that facilitate and hinder collaboration, and highlights short-term outcomes and long-term impacts that offer encouraging perspectives on how interprofessional collaboration can continue taking shape. This study also suggests how although interprofessional collaboration can be challenging to execute, it can improve the educational success of students and patients respectively as well as the professional success of educators and HPs alike. Ultimately, the interprofessional collaboration of educators and HPs is valuable to everyone involved and should be greatly considered by educational institutions so we can effectively and appropriately create a collaborative working and learning environment for all.

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**Ethical Approval**

Not applicable.

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**Table 1**  
Databases and Supplemental Sources

<b>Databases</b>	<b>Supplemental</b>
<b>ERIC</b>	Grey literature:
<b>Education Source</b>	● Government websites and documents
<b>MedLine</b>	relative to education;
<b>CINAHL</b>	● Policy websites and documents relative to
	education

**Table 2**  
Search Strategy and Search Terms

1. Database searches involved combinations of search terms across 2 categories (healthcare and education). It also included terminology (i.e., terms in the third column) that allowed for linkages between both healthcare and education.

<b>Healthcare</b>	<b>Education</b>	<b>Linkage Terms</b>
<b>health professionals</b>	classroom teachers	collaborates/d
<b>allied health professionals</b>	general education teachers	collaboration
<b>physicians</b>	school-based educators	collaborative
<b>nurses</b>	teachers	shares/d work
	educators	sharing of work
<b>occupational therapists</b>	early childhood educators	
<b>speech language pathologists</b>	educational assistants	
<b>physiotherapists</b>		
<b>social workers</b>		
<b>psychologists</b>		

2. Search terms were adjusted as familiarity with keywords was gained.
3. Selected journals were “hand searched.”
4. Reference lists of key articles were “hand searched.”

**Table 3**  
Inclusion and Exclusion Criteria

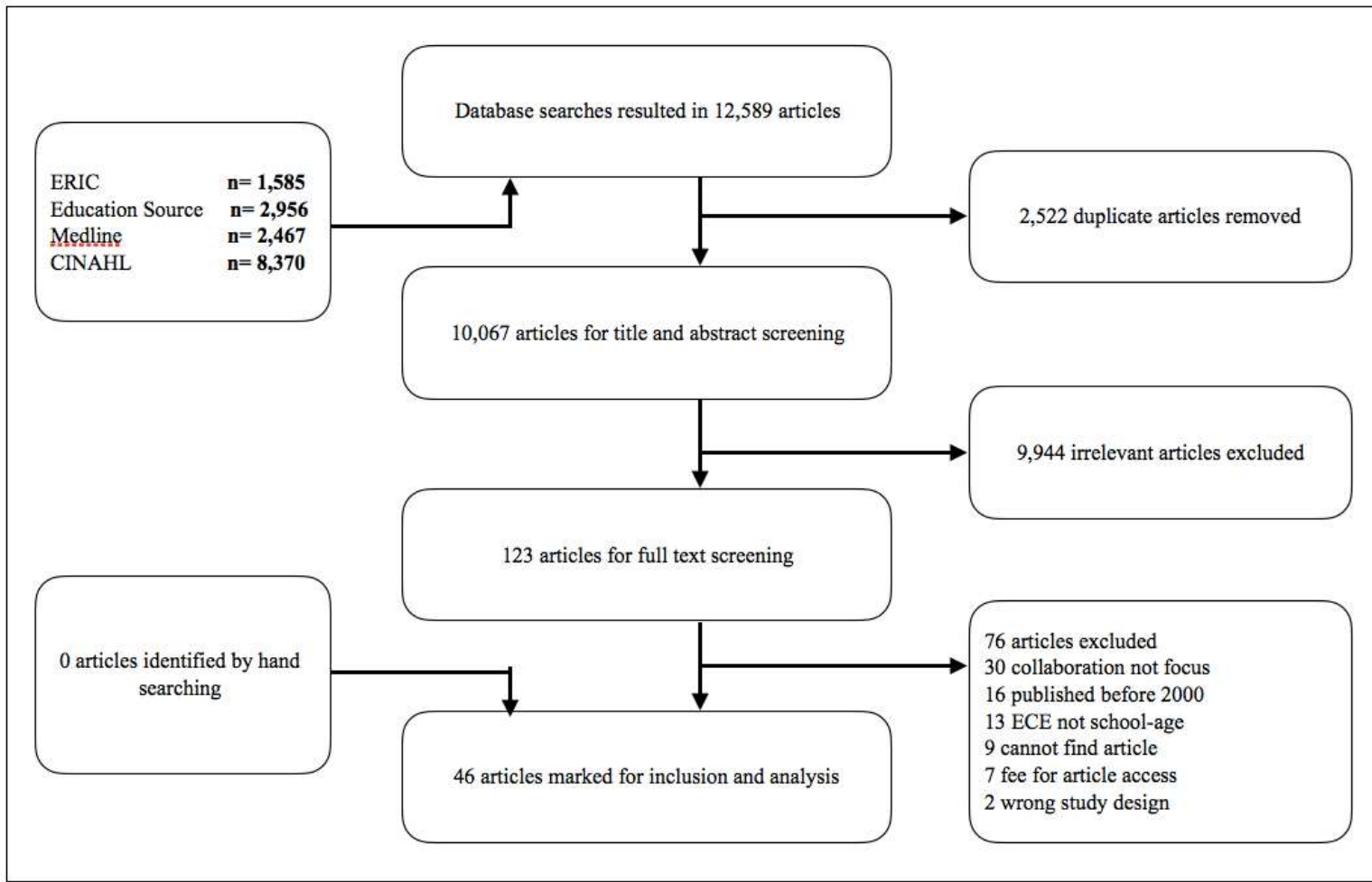
	<b>Inclusion criteria</b>	<b>Exclusion criteria</b>
<b>Publication date</b>	Published between 2000 and 2020 for all Canadian and international literature	Published before 2000
<b>Language</b>	Study is published in English	Study is published in a language other than English
<b>Document Type/Study Design</b>	Academic literature (empirical or review papers including systematic methodologies) and grey literature (publicly available reports, publications, proceedings of meetings, social and traditional media outputs)	Does not meet document type/study design criteria
<b>Country</b>	The scoping review will capture all Canadian- based as well as a broader international literature	No country will be excluded
<b>Population</b>	Allied health professionals (both male and female) in the sub-specialty of rehabilitation including speech-language pathology, occupational therapy, and physical therapy  School-based educators	Other types of allied health professionals, medical professionals, and educators
<b>Level</b>	All levels of professionals, including those still in practice	N/A
<b>Field/Discipline</b>	Allied health, health professions, education	Study in a field or discipline other than the listed criteria

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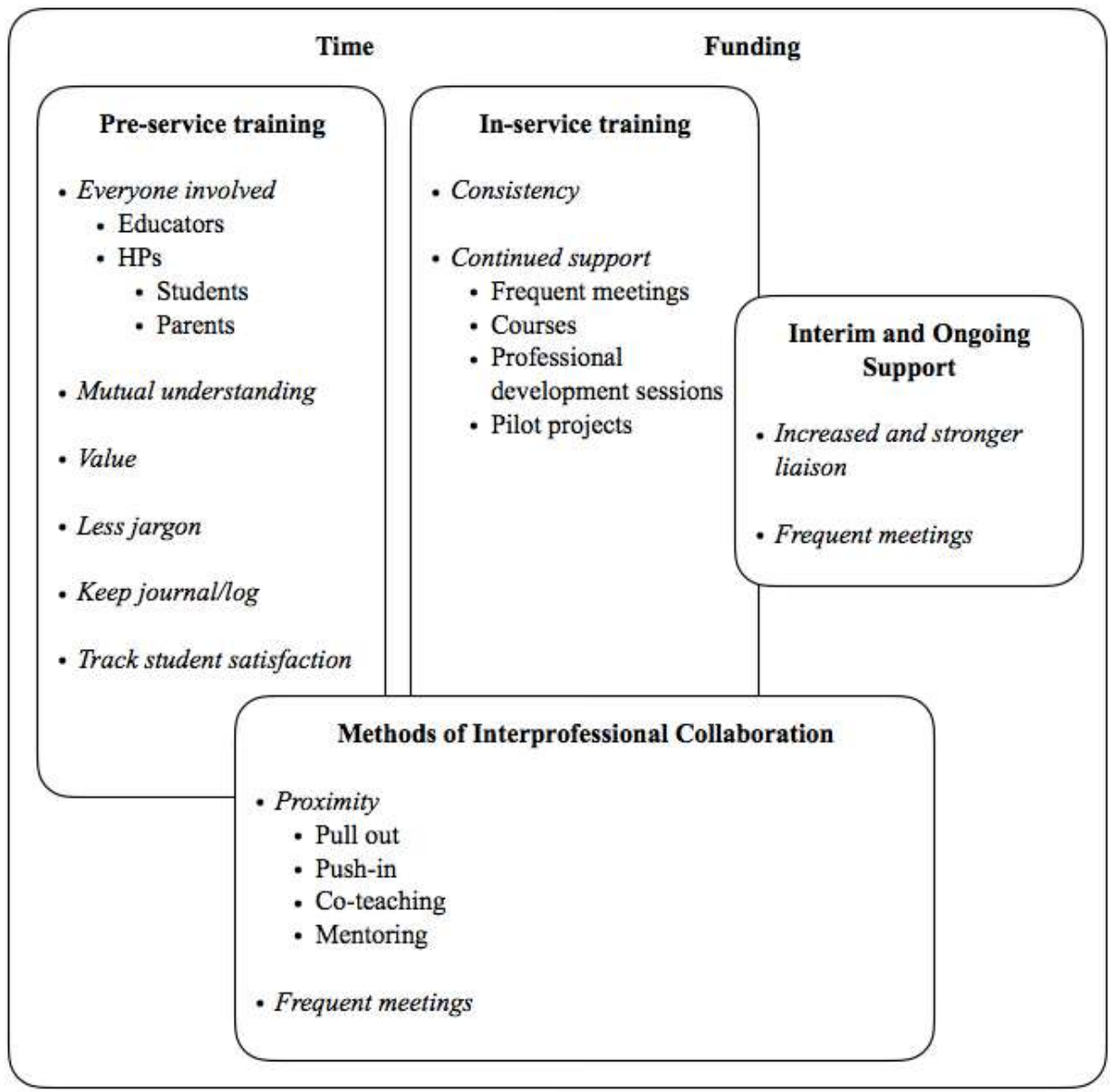
<b>Collaboration</b>	All types of collaboration between professions listed above eligible	Study does not involve collaboration
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**Figure 1**  
Study Screening and Selection Flowchart



**Figure 2**  
Thematic Structure



## Appendix A

### Search Terms and Boolean Strings

ERIC	Education Source	Medline
1 exp Allied Health Personnel/	1 DE "Allied health personnel" OR DE "Home health aides" OR DE "Occupational therapists" OR DE "Speech therapists"	1 exp Allied Health Personnel/
2 (allied adj2 health adj2 profession*).ti,ab.	2 (allied N2 health N2 profession*)	2 (allied adj2 health adj2 profession*).ti,ab.
3 (allied adj2 health adj2 personnel*).ti,ab.	3 (allied N2 health N2 personnel*)	3 (allied adj2 health adj2 personnel*).ti,ab.
4 (allied adj2 health adj2 staff*).ti,ab.	4 (allied N2 health N2 staff*)	4 (allied adj2 health adj2 staff*).ti,ab.
5 occupational therap*.ti,ab.	5 occupational therap' or OT	5 occupational therap*.ti,ab.
6 physical therap*.ti,ab.	6 physical therap*	6 physical therap*.ti,ab.
7 (speech adj3 patholog*).ti,ab.	7 (speech N3 patholog*)	7 (speech adj3 patholog*).ti,ab.
8 (speech adj3 therap*).ti,ab.	8 (speech N3 therap*)	8 (speech adj3 therap*).ti,ab.
9 (language adj3 patholog*).ti,ab.	9 (language N3 patholog*)	9 (language adj3 patholog*).ti,ab.
10 (language adj3 therap*).ti,ab.	10 (language N3 therap*)	10 (language adj3 therap*).ti,ab.
11 physiotherap*.ti,ab.	11 physiotherap* or physical therap*	11 physiotherap*.ti,ab.
12 or/1-11	12 S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9 OR S10 OR S11	12 or/1-11
13 School Teachers/	13 School Teachers/	13 School Teachers/
14 teacher*.ti,ab.	14 teacher*	14 teacher*.ti,ab.
15 educator*.ti,ab.	15 educator*	15 educator*.ti,ab.
16 13 or 14 or 15	16 S13 OR S14 OR S15	16 13 or 14 or 15
17 12 and 16	17 S12 AND S16	17 12 and 16
<b>CINAHL</b>		
1 (MH "Allied Health Personnel+")	7 (speech N2 patholog*)	13 School Teachers
2 (allied N2 health N2 profession*)	8 (speech N2 therap*)	14 teacher*
3 (allied N2 health N2 personnel*)	9 (language N2 patholog*)	15 educator*
4 (allied N2 health N2 staff*)	10 (language N2 therap*)	16 S13 OR S14 OR S15
5 occupational therap' or OT	11 physiotherap* or physical therap*	17 S12 AND S16

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6 physical therap\*

12 or/1-11

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## Appendix B

### Data Extraction and Charting Form

Author (year), location	Publication type	Theme
<b>Anaby, Campbell, Missiuna, Shaw, Bennett, Khan, Tremblay, Kalubi-Lukusa, Camden (2018) Canada</b>	Literature review	<ul style="list-style-type: none"> <li>• Mutual understanding</li> </ul>
<b>Bailey (2018), US</b>	Commentary	<ul style="list-style-type: none"> <li>• Proximity</li> </ul>
<b>Barnes and Turner (2001), US</b>	Empirical study	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Everyone involved</li> </ul>
<b>Bauer, Iyer, Boon, Fore (2010), US</b>	Brief report	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Value</li> <li>• Continued support</li> <li>• Time/resources</li> </ul>
<b>Baxter, Brookes, Bianchi, Rashid, Hay (2009), UK</b>	Empirical study	<ul style="list-style-type: none"> <li>• Time/resources</li> <li>• Mutual understanding</li> <li>• Frequent meetings</li> <li>• Continued support</li> </ul>
<b>Christner (2015), US</b>	Brief report	<ul style="list-style-type: none"> <li>• Proximity</li> <li>• Mutual understanding</li> <li>• Frequent meetings</li> </ul>
<b>Flynn (2010), US</b>	Brief report	<ul style="list-style-type: none"> <li>• Everyone involved</li> <li>• Mutual understanding</li> </ul>
<b>Gallagher, Murphy, Conway, &amp; Perry (2019), Ireland</b>	Empirical study	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Continued support</li> <li>• Tracking student satisfaction</li> </ul>
<b>Gallagher, Richards (2020), UK</b>	Empirical study	<ul style="list-style-type: none"> <li>• Everyone involved</li> <li>• Mutual understanding</li> <li>• Value</li> </ul>
<b>Glover, McCormack, Smith-Tamaray</b>	Empirical study	
<b>Gosselin, Sundeen (2019), US</b>	Literature review	<ul style="list-style-type: none"> <li>• Everyone involved</li> <li>• Consistency</li> <li>• Frequent meetings</li> <li>• Proximity</li> <li>• Mutual understanding</li> </ul>
<b>Hargreaves, Nakhoda, Mottay, &amp; Sabramoney (2012), South Africa</b>	Empirical study	<ul style="list-style-type: none"> <li>• Everyone involved</li> <li>• Mutual understanding</li> <li>• Less jargon</li> </ul>
<b>Hartas (2004), UK</b>	Empirical study	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Continued support</li> <li>• Proximity</li> </ul>
<b>Hersh, O'Rourke, Lewis (2013), Australia</b>	Brief report	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Everyone involved</li> </ul>
<b>Hutton (2019), UK</b>	Empirical study	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Consistency</li> </ul>
<b>Kennedy and Stewart (2012), Australia</b>	Empirical study	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Consistency</li> <li>• Frequent meetings</li> </ul>
<b>Kohler (2016), UK</b>	Empirical study	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Consistency</li> <li>• Frequent meetings</li> <li>• Proximity</li> </ul>
<b>Leader-Janssen, Swain, Delkamiller, Ritzman (2012), US</b>	Brief report	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Continued support</li> <li>• Everyone involved</li> </ul>

<b>Leyden, Stackhouse, Szczerbinski (2011), UK</b>	Empirical study	<ul style="list-style-type: none"> <li>• Everyone involved</li> <li>• Consistency</li> <li>• Continued support</li> <li>• Mutual understanding</li> <li>• Time/resources</li> </ul>
<b>Majasic, Benson, Szucs (2015), US</b>	Empirical study	<ul style="list-style-type: none"> <li>• Consistency</li> <li>• Proximity</li> </ul>
<b>Miller (2002), US</b>	Literature review	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Proximity</li> <li>• Consistency</li> </ul>
<b>Nochajski (2002), US</b>	Empirical study	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Proximity</li> <li>• Consistency</li> <li>• Time/resources</li> <li>• Frequent meetings</li> </ul>
<b>Oosthuizen, Helena, Klop, Daleen, Visser, Monique (2015), South Africa</b>	Commentary	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Continued support</li> </ul>
<b>Patton, Hutton, MacCobb (2015), UK</b>	Empirical study	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Proximity</li> <li>• Consistency</li> <li>• Frequent meetings</li> <li>• Time/resources</li> </ul>
<b>Pena, Quinn (2003), Unidentified</b>	Empirical study	<ul style="list-style-type: none"> <li>• Frequent meetings</li> <li>• Mutual understanding</li> <li>• Time/resources</li> </ul>
<b>Powell and Sable (2001), US</b>	Literature review	<ul style="list-style-type: none"> <li>• Mutual understanding</li> </ul>
<b>Rens &amp; Joosten (2014) Australia</b>	Empirical study	<ul style="list-style-type: none"> <li>• Frequent meetings</li> <li>• Less jargon</li> </ul>
<b>Santos (2012), US</b>	Empirical study	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Consistency</li> </ul>
<b>Shaughnessy, Sanger (2005), US</b>	Empirical study	<ul style="list-style-type: none"> <li>• Everyone involved</li> <li>• Consistency</li> <li>• Continued support</li> <li>• Mutual understanding</li> <li>• Time/resources</li> </ul>
<b>Silverman, Millspaugh (2006), US</b>	Empirical study	<ul style="list-style-type: none"> <li>• Proximity</li> <li>• Frequent meetings</li> <li>• Consistency</li> <li>• Time/resources</li> <li>• Mutual understanding</li> </ul>
<b>Starling, Munro, Togher, Arciuli (2012), Australia</b>	Empirical study	<ul style="list-style-type: none"> <li>• Less jargon</li> <li>• Consistency</li> </ul>
<b>Stearns (2017), US</b>	Empirical study	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Continued support</li> </ul>
<b>Suc, Bukovec, Karpljuk (2017), Slovenia</b>	Empirical study	<ul style="list-style-type: none"> <li>• Everyone involved</li> <li>• Mutual understanding</li> <li>• Consistency</li> <li>• Continued support</li> <li>• Proximity</li> </ul>
<b>Suleman, McFarlane, Pollock, Schneider, Leroy, Skoczylas (2014), Canada</b>	Empirical study	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Frequent meetings</li> <li>• Proximity</li> </ul>
<b>Suleman, McFarlane, Pullock, Schneider, Leroy (2013), Canada</b>	Empirical study	<ul style="list-style-type: none"> <li>• Less jargon</li> <li>• Everyone involved</li> <li>• Mutual understanding</li> <li>• Time/resources</li> </ul>
<b>Tancredi &amp; Glasby (2020), Australia</b>	Commentary	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Continued support</li> </ul>
<b>The ASHA Leader (2014), US</b>	Empirical study	<ul style="list-style-type: none"> <li>• Frequent meetings</li> <li>• Mutual understanding</li> <li>• Continued support</li> </ul>

<b>Truong, Hodgetts (2017), Canada</b>	Empirical study	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Frequent meetings</li> </ul>
<b>Villeneuve (2009), Canada</b>	Brief report	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Consistency</li> </ul>
<b>Villeneuve &amp; Hutchinson (2012), Canada</b>	Commentary	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Continued support</li> <li>• Keeping a journal/log</li> </ul>
<b>Watson, Bellon-Harn (2014), US</b>	Commentary	<ul style="list-style-type: none"> <li>• Keeping a journal/log</li> <li>• Frequent meetings</li> <li>• Tracking student satisfaction</li> </ul>
<b>Wilson &amp; Harris (2018), Canada</b>	Empirical study	<ul style="list-style-type: none"> <li>• Time/resources</li> <li>• Mutual understanding</li> <li>• Less jargon</li> </ul>
<b>Wilson, McNeill, Gillon (2015), New Zealand</b>	Empirical study	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Proximity</li> </ul>
<b>Wilson, McNeill, Gillon (2017), New Zealand</b>	Empirical study	<ul style="list-style-type: none"> <li>• Time/resources</li> <li>• Less jargon</li> <li>• Mutual understanding</li> </ul>
<b>Wilson, McNeill, Gillon (2019), New Zealand</b>	Empirical study	<ul style="list-style-type: none"> <li>• Time/resources</li> <li>• Mutual understanding</li> <li>• Frequent meetings</li> <li>• Continued support</li> </ul>
<b>Young, Bowers (2018), US</b>	Empirical study	<ul style="list-style-type: none"> <li>• Mutual understanding</li> <li>• Proximity</li> <li>• Consistency</li> </ul>

## Appendix C

### Publication Year, Location, and Setting

<b>Authors</b>	<b>Publication Year</b>	<b>Location</b>	<b>Setting</b>
<b>Anaby, Campbell, Missiuna, Shaw, Bennett, Khan, Tremblay, Kalubi-Lukusa, Camden</b>	2018	Canada	Unidentified School
<b>Bailey</b>	2018	US	Elementary
<b>Barnes and Turner</b>	2001	US	Unidentified School
<b>Bauer, Iyer, Boon, Fore</b>	2010	US	Unidentified School
<b>Baxter, Brookes, Bianchi, Rashid, Hay</b>	2009	UK	Elementary
<b>Christner</b>	2015	US	Elementary
<b>Flynn</b>	2010	US	Unidentified School
<b>Gallagher, Murphy, Conway, &amp; Perry</b>	2019	Ireland	Elementary
<b>Gallagher, Richards</b>	2020	UK	Elementary
<b>Glover, McCormack, Smith-Tamaray</b>	2015	Australia	Elementary
<b>Gosselin, Sundeen</b>	2019	US	Elementary
<b>Hargreaves, Nakhooda, Mottay, &amp; Sabramoney</b>	2012	South Africa	Elementary
<b>Hartas</b>	2004	UK	Special Education School
<b>Hersh, O'Rourke, Lewis</b>	2013	Australia	Post-secondary
<b>Hutton</b>	2009	UK	Elementary
<b>Kennedy and Stewart</b>	2012	Australia	Elementary
<b>Kohler</b>	2016	US	Elementary
<b>Leader-Janssen, Swain, Delkamiller, Ritzman</b>	2012	US	Unidentified School
<b>Leyden, Stackhouse, Szczerbinski</b>	2011	UK	Unidentified School
<b>Majasic, Benson, Szucs</b>	2015	US	Unidentified School
<b>Miller</b>	2002	US	Elementary
<b>Nochajski</b>	2002	US	Elementary
<b>Oosthuizen, Helena, Klop, Daleen, Visser, Monique</b>	2015	South Africa	Post-secondary
<b>Patton, Hutton, MacCobb</b>	2015	UK	Elementary
<b>Pena, Quinn</b>	2003	Unidentified	Elementary
<b>Powell and Sable</b>	2001	US	Post-secondary
<b>Rens &amp; Joosten</b>	2014	Australia	Unidentified School
<b>Santos</b>	2012	US	Elementary
<b>Shaughnessy, Sanger</b>	2005	US	Elementary
<b>Silverman, Millspaugh</b>	2006	US	Elementary
<b>Starling, Munro, Togher, Arciuli</b>	2012	Australia	High
<b>Stearns</b>	2017	US	Unidentified School
<b>Suc, Bukovec, Karpljuk</b>	2017	Slovenia	Elementary

<b>Suleman, McFarlane, Pollock, Schneider, Leroy, Skoczylas</b>	2014	Canada	Post-secondary
<b>Suleman, McFarlane, Pullock, Schneider, Leroy</b>	2013	Canada	Post-secondary
<b>Tancredi &amp; Glasby</b>	2020	Australia	Unidentified School
<b>The ASHA Leader</b>	2014	US	Unidentified School
<b>Truong, Hodgetts</b>	2017	Canada	Unidentified School
<b>Villeneuve</b>	2009	Canada	Unidentified School
<b>Villeneuve &amp; Hutchinson</b>	2012	Canada	Elementary
<b>Watson, Bellon-Harn</b>	2014	US	Unidentified School
<b>Wilson &amp; Harris</b>	2018	Canada	Unidentified School
<b>Wilson, McNeill, Gillon</b>	2019	New Zealand	Elementary
<b>Wilson, McNeill, Gillon</b>	2017	New Zealand	Elementary
<b>Wilson, McNeill, Gillon</b>	2015	New Zealand	Elementary
<b>Young, Bowers</b>	2018	US	Elementary

## Appendix D

### Publication Type, Study Design, Sources of Data, and Data Collection Methods

<b>Authors</b>	<b>Type of Publication</b>	<b>Study Design</b>	<b>Data Sources</b>	<b>Data Collection Methods</b>
<b>Anaby, Campbell, Missiuna, Shaw, Bennett, Khan, Tremblay, Kalubi-Lukusa, Camden</b>	Literature Review	Lterature Review	HPs	N/A
<b>Bailey</b>	Commentary	N/A	HPs	N/A
<b>Barnes and Turner</b>	Empirical Study	Survey	HPs	Survey
<b>Bauer, Iyer, Boon, Fore</b>	Brief Report	N/A	All	N/A
<b>Baxter, Brookes, Bianchi, Rashid, Hay</b>	Empirical Study	Survey	Teachers	Survey
<b>Christner</b>	Empirical Study	Qualitative	HPs	Survey
<b>Flynn</b>	Brief Report	N/A	Teachers	N/A
<b>Gallagher, Murphy, Conway, &amp; Perry</b>	Empirical Study	Qualitative	Teachers	Focus Groups
<b>Gallagher, Richards</b>	Empirical Study	Qualitative	HPs	Focus Groups
<b>Glover, McCormack, Smith-Tamaray</b>	Empirical Study	Mixed Methods	Teachers	N/A
<b>Gosselin, Sundeen</b>	Brief Report	Qualitative	Teachers	N/A
<b>Hargreaves, Nakhooda, Mottay, &amp; Sabramoney</b>	Empirical Study	Qualitative	HPs	Interview
<b>Hartas</b>	Empirical Study	Qualitative	Teachers	Focus Groups
<b>Hersh, O'Rourke, Lewis</b>	Empirical Study	Qualitative	Teachers	Focus Groups
<b>Hutton</b>	Empirical Study	Qualitative	HPs	Interview
<b>Kennedy and Stewart</b>	Empirical Study	Survey	Teachers	Survey
<b>Kohler</b>	Empirical Study	Qualitative	Teachers	Focus Groups
<b>Leader-Janssen, Swain, Delkamiller, Ritzman</b>	Commentary	N/A	Teachers	N/A
<b>Leyden, Stackhouse, Szczerbinski</b>	Empirical Study	Qualitative	Teachers	Interview
<b>Majasic, Benson, Szucs</b>	Empirical Study	Survey	Teachers	Survey
<b>Miller</b>	Empirical Study	Observational	HPs	N/A
<b>Nochajski</b>	Empirical Study	Survey	HPs	Survey

<b>Oosthuizen, Helena, Klop, Daleen, Visser, Monique</b>	Commentary	Survey	Teachers	Focus Groups
<b>Patton, Hutton, MacCobb</b>	Empirical Study	Mixed Methods	Teachers	Survey Focus Groups
<b>Pena, Quinn</b>	Empirical Study	Observational	Teachers	N/A
<b>Powell and Sable</b>	Literature Review	Lterature Review	HPs	N/A
<b>Rens &amp; Joosten</b>	Empirical Study	Mixed Methods	HPs	N/A
<b>Santos</b>	Brief Report	Observational	HPs	N/A
<b>Shaughnessy, Sanger</b>	Empirical Study	Mixed Methods	Teachers	Survey Interviews
<b>Silverman, Millspaugh</b>	Empirical Study	Observational	Teachers	N/A
<b>Starling, Munro, Togher, Arciuli</b>	Empirical Study	Experimental	Teachers	Interview
<b>Stearns</b>	Brief Report	N/A	Teachers	N/A
<b>Suc, Bukovec, Karpljuk</b>	Empirical Study	Qualitative	HPs	Focus Groups
<b>Suleman, McFarlane, Pollock, Schneider, Leroy, Skoczylas</b>	Empirical Study	Qualitative	Teachers	Survey
<b>Suleman, McFarlane, Pullock, Schneider, Leroy</b>	Empirical Study	Observational	Students	N/A
<b>Tancredi &amp; Glasby</b>	Commentary	N/A	HPs	N/A
<b>The ASHA Leader</b>	Brief Report	N/A	HPs	N/A
<b>Truong, Hodgetts</b>	Literature Review	Qualitative	Teachers	N/A
<b>Villeneuve</b>	Literature Review	Lterature Review	HPs	N/A
<b>Villeneuve &amp; Hutchinson</b>	Commentary	Qualitative	Teachers	Case Study
<b>Watson, Bellon-Harn</b>	Commentary	N/A	Teachers	N/A
<b>Wilson &amp; Harris</b>	Empirical Study	Qualitative	Teachers	Focus Groups
<b>Wilson, McNeill, Gillon</b>	Empirical Study	Observational	Students	N/A
<b>Wilson, McNeill, Gillon</b>	Empirical Study	Qualitative	HPs	Interview
<b>Wilson, McNeill, Gillon</b>	Empirical Study	Survey	Teachers	Survey
<b>Young, Bowers</b>	Empirical Study	Qualitative	Teachers	Interview

## Appendix E

### Type of Educators, Type of HPs

<b>Authors</b>	<b>Type of educators</b>	<b>Type of HPs</b>
<b>Anaby, Campbell, Missiuna, Shaw, Bennett, Khan, Tremblay, Kalubi-Lukusa, Camden</b>	Unidentified Teacher	SLPs
<b>Bailey</b>	Primary Teacher	SLPs
<b>Barnes and Turner</b>	Unidentified Teacher	OTs
<b>Bauer, Iyer, Boon, Fore</b>	Unidentified Teacher	SLPs
<b>Baxter, Brookes, Bianchi, Rashid, Hay</b>	Primary Teacher	SLPs
<b>Christner</b>	Primary Teacher	OTs
<b>Flynn</b>	Unidentified Teacher	SLPs
<b>Gallagher, Murphy, Conway, &amp; Perry</b>	Primary Teacher	SLPs
<b>Gallagher, Richards</b>	Primary Teacher	SLPs
<b>Glover, McCormack, Smith-Tamaray</b>	Primary Teacher	SLPs
<b>Gosselin, Sundeen</b>	Primary Teacher	SLPs
<b>Hargreaves, Nakhooda, Mottay, &amp; Sabramoney</b>	Junior Teacher	OTs
<b>Hartas</b>	Unidentified Teacher	SLPs
<b>Hersh, O'Rourke, Lewis</b>	Primary Teacher	SLPs
<b>Hutton</b>	Primary Teacher	OTs
<b>Kennedy and Stewart</b>	Primary Teacher	OTs
<b>Kohler</b>	Primary Teacher	SLPs
<b>Leader-Janssen, Swain, Delkamiller, Ritzman</b>	Unidentified Teacher	N/A
<b>Leyden, Stackhouse, Szczerbinski</b>	Unidentified Teacher	N/A
<b>Majasic, Benson, Szucs</b>	Unidentified Teacher	OTs
<b>Miller</b>	Primary Teacher	SLPs
<b>Nochajski</b>	Unidentified Teacher	N/A
<b>Oosthuizen, Helena, Klop, Daleen, Visser, Monique</b>	Unidentified Teacher	SLPs
<b>Patton, Hutton, MacCobb</b>	Primary Teacher	OTs
<b>Pena, Quinn</b>	Primary Teacher	SLPs
<b>Powell and Sable</b>	Unidentified Teacher	All
<b>Rens &amp; Joosten</b>	Unidentified Teacher	OTs
<b>Santos</b>	Unidentified Teacher	SLPs
<b>Shaughnessy, Sanger</b>	Primary Teacher	SLPs
<b>Silverman, Millspaugh</b>	Primary Teacher	OTs
<b>Starling, Munro, Togher, Arciuli</b>	Senior Teacher	SLPs
<b>Stearns</b>	Unidentified Teacher	PTs
<b>Suc, Bukovec, Karpljuk</b>	Primary Teacher	OTs
<b>Suleman, McFarlane, Pollock, Schneider, Leroy, Skoczylas</b>	Unidentified Teacher	SLPs
<b>Suleman, McFarlane, Pullock, Schneider, Leroy</b>	Unidentified Teacher	SLPs
<b>Tancredi &amp; Glasby</b>	Unidentified Teacher	
<b>The ASHA Leader</b>	Unidentified Teacher	SLPs
<b>Truong, Hodgetts</b>	Unidentified Teacher	OTs

<b>Villeneuve</b>	Unidentified Teacher	OTs
<b>Villeneuve &amp; Hutchinson</b>	Primary Teacher	OTs
<b>Watson, Bellon-Harn</b>	Primary Teacher	SLPs
<b>Wilson &amp; Harris</b>	Unidentified Teacher	OTs
<b>Wilson, McNeill, Gillon</b>	Primary Teacher	SLPs
<b>Wilson, McNeill, Gillon</b>	Junior Teacher	SLPs
<b>Wilson, McNeill, Gillon</b>	Junior Teacher	SLPs
<b>Young, Bowers</b>	Unidentified Teacher	SLPs

## Appendix F

### Type of Collaboration, Study Objective

<b>Authors</b>	<b>Type of Collaboration</b>	<b>Study Objectives</b>
<b>Anaby, Campbell, Missiuna, Shaw, Bennett, Khan, Tremblay, Kalubi-Lukusa, Camden</b>	Active	To synthesize current evidence about principles for organizing and delivering interdisciplinary school-based support services for students with disabilities and ascertain useful strategies for implementation of principles in the school setting.
<b>Bailey</b>	Active	To share evidence-based methods for provision of SLP services in the classroom.
<b>Barnes and Turner</b>	Both	To describe collaboration practices between teachers and OTs in the school setting, how these relate to IEP objectives, and explore teachers' perceptions of OT contributions to student skill development.
<b>Bauer, Iyer, Boon, Fore</b>	Active	To provide 20 ways for classroom educators to collaborate with SLPs.
<b>Baxter, Brookes, Bianchi, Rashid, Hay</b>	Perceptive	To investigate the perceptions of school staff who work with students with communication needs regarding SLP services in schools, including addressing any issues with the current service that needed to be addressed for future service planning.
<b>Christner</b>	Perceptive	To determine whether completion a web-based educational series reviewing the role of the OT would make elementary teachers report a greater understanding of the OT and present a willingness to collaborate with an OT to address the students needs in the educational process.
<b>Flynn</b>	Active	To provide insight as to how SLPs can be utilized within the school-system and classroom while

		working alongside teachers and having both benefit one another.
<b>Gallagher, Murphy, Conway, &amp; Perry</b>	Perceptive	To engage key stakeholders in the co-design of their ideal speech-language therapy service and support in school through AI.
<b>Gallagher, Richards</b>	Perceptive	To work with stakeholders (i.e., SLTs, teachers, parents) to co-design an ideal speech therapy program in an effort to develop a conceptual model that could be used in future when working with these populations.
<b>Glover, McCormack, Smith-Tamaray</b>	Perceptive	To investigate the needs of educators and HPs and their preferences for service delivery when working with mainstream, primary school-aged children with speech difficulties.
<b>Gosselin, Sundeen</b>	Active	To identify obstacles and strategies spec ed teams can use to improve communication and collaboration.
<b>Hargreaves, Nakhooda, Mottay, &amp; Sabramoney</b>	Perceptive	To explore collaboration between OTs and school teachers in junior primary mainstream schools and factors that are hindering them.
<b>Hartas</b>	Perceptive	To examine SLTs' and teachers' perceptions of collaboration with other colleagues at a school that caters to students with special educational needs in language in an effort to determine factors that hinder and facilitate collaboration.
<b>Hersh, O'Rourke, Lewis</b>	Active	To report on an IP learning opportunity to explore and learn about each other's role and work through cases.
<b>Hutton</b>	Active	To describe the outcome of OT intervention in two primary schools with the aim of increasing knowledge/skills in teachers and TAs.
<b>Kennedy and Stewart</b>	Perceptive	To explore OTs perceptions and experiences of collaboration with school teachers in providing services to primary level students.
<b>Kohler</b>	Active	To explore 1st and 2nd grade teachers' knowledge of oral language development and effective interventions for at-risk students with potential language delays. The primary goal was for teachers and SLPs to collaborate to create effective oral language

		interventions for students who are at-risk for a language delay.
<b>Leader-Janssen, Swain, Delkamiller, Ritzman</b>	Active	To provide general education teachers with specific information regarding collaborative roles and responsibilities of several team members involved in the education of students with disabilities.
<b>Leyden, Stackhouse, Szczerbinski</b>	Active	To have teachers implement a whole-school approach (WSA) to strengthen speech/language communication in students.
<b>Majasic, Benson, Szucs</b>	Perceptive	To investigate perceptions on the role of OT in the educational system.
<b>Miller</b>	Active	To enhance the nature and level of speech/language therapy for students with difficulties in language comprehension which significantly affected their access to the curriculum. A secondary goal was for teachers and SLPs to collaborate and gain a greater insight of each the roles they play for one another and for students.
<b>Nochajski</b>	Perceptive	To gain insight on the perspectives all educators and HPs had towards collaboration.
<b>Oosthuizen, Helena, Klop, Daleen, Visser, Monique</b>	Perceptive	To explore perceptions and experiences of teachers, SLT students, and tutors involved in IP collaboration for intervention of literacy difficulties.
<b>Patton, Hutton, MacCobb</b>	Active	To investigate the process of collaborative practice using findings of a study involving students with a developmental disability, their teachers, and an OT in a collaborative application of a handwriting teaching method.
<b>Pena, Quinn</b>	Active	To share outcomes of a a collaboration model developed for a Head Start program
<b>Powell and Sable</b>	Active	To use the Project TEAM (multi-disciplinary education and mentoring) model for rehab/related service professions and educators in an effort to have all professions gain knowledge and training experiences by working together.

<b>Rens &amp; Joosten</b>	Perceptive	To study the lived experiences of teachers and OTs working in the school-based OT program to determine if it could inform collaborative practice both in schools and in the community.
<b>Santos</b>	Perceptive	To provide a personal account from an SLP that brings us into her world and allows us to see how teachers and SLPs can collaborate effectively - what this means, looks like, how it can be executed, and the host of benefits.
<b>Shaughnessy, Sanger</b>	Perceptive	To examine perceptions of kindergarten educators surrounding literacy/language development, roles and responsibilities of SLPs, and teacher/SLP interventions in the classroom.
<b>Silverman, Millspaugh</b>	Active	To describe the joint efforts between educators and OTs when sharing physical space (i.e., a classroom). Proximity encourages/promotes collaboration. Arose from an issue with a shortage of space within the school.
<b>Starling, Munro, Togher, Arciuli</b>	Active	To evaluate the efficacy of a collaboration intervention where an SLP taught teachers how to modify their oral and written instruction to assist their students with language impairments.
<b>Stearns</b>	Perceptive	To provide a firsthand perspective of how a PT/teacher (who has both designations) notices both complement one another and need to be understood by both parties in order to have effective collaboration.
<b>Suc, Bukovec, Karpljuk</b>	Perceptive	Purpose is two fold: 1) To examine primary teachers' experiences and perspectives of collaboration within the educational context, and 2) To examine OTs who work with spec ed students and their experiences and perspectives collaborating with teachers.
<b>Suleman, McFarlane, Pollock, Schneider, Leroy, Skoczylas</b>	Active	To determine the effects of an IPE experience on student teachers and SLPs' awareness and understanding of models of specialized delivery in schools.

<b>Suleman, McFarlane, Pullock, Schneider, Leroy</b>	Active	To examine the efficacy of an interprofessional educational experience between student SLPs and student teachers - primarily in an effort to correct profession-specific terminology).
<b>Tancredi &amp; Glasby</b>	Active	To provide 10 tips for interprofessional collaboration between SLPs and educators.
<b>The ASHA Leader</b>	Active	To provide a statistical/data overview of how SLPs are now using curricula in their design of their work with students and how they are collaborating with teachers to ensure the success of student education all around.
<b>Truong, Hodgetts</b>	Perceptive	To explore teacher perceptions toward OT roles and services.
<b>Villeneuve</b>	Perceptive	To synthesize and critically analyze the literature on collaborative consultation in school-based OT in an effort to provide program administrators with direction for examining decision making regarding service delivery in their districts.
<b>Villeneuve &amp; Hutchinson</b>	Active	To describe the nature of collaboration in two cases of school-based OT therapy service delivery programs for students with a developmental disability.
<b>Watson, Bellon-Harn</b>	Active	To use the RTI Tier 2 model so that SLPs and educators can develop strong collaborative partnerships. This article also provides steps for development and implementation of this program for kindergarten.
<b>Wilson &amp; Harris</b>	Perceptive	To explore how teachers perceive OT services delivered using the P4C model to support students with a range of exceptionalities.
<b>Wilson, McNeill, Gillon</b>	Active	To examine whether students' speech and literacy skills were impacted (either positively, negatively, or neutrally) when student SLPs and student teachers worked together during an IPE initiative.
<b>Wilson, McNeill, Gillon</b>	Active	To explore how student SLTs and student teachers develop competency for collaborative practice when co-working during practical placements to support

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		students' speech and literacy development.
<b>Wilson, McNeill, Gillon</b>	Perceptive	To examine the knowledge and perceptions of student educators and SLPs in the areas of language concepts, literacy curriculum, service delivery, and professional collaboration.
<b>Young, Bowers</b>	Perceptive	To examine what (if any) team-based approaches were being conducted among professionals who focus on literacy/language development in elementary school settings.

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## Section 3: Conclusion

### Lessons Learned

In addition to the tremendous content knowledge that I have gained from conducting this study, I have also learned a significant amount about the process of conducting research, about scoping reviews and other methodologies, about incorporating knowledge from my personal past experiences to help me understand new ideas, as well as about my personal limitations and strengths as a researcher, academic, and professional. Upon reflection of this entire experience, I have analogously compared it to the experience of learning to operate a vehicle. As a first-time graduate student and novice researcher, similar to an individual who steps into the driver's seat for the first time, I was not able to simply "get in and drive". There was a large objective learning opportunity presented before me that required my attention, inquiry, practice, and persistency, over and above the immense commitments I had to my career and life outside of academia. As such, this resulted in many successes and challenges alike, all of which provided me with insight into next steps for future research and practice.

### *Successes*

There were several benefits I gained from conducting this study, both technical and personal. Collectively, they helped me foster a greater intrigue for this subject, align my beliefs and understanding of both educational theory and practice, showcase how such interprofessional work coincides with and proves to be valuable toward my career, and find motivation for completing and sharing my research.

**A "road map" to success.** First, it was important to me from the beginning of my program, especially my research, to have a prescribed outline with detailed structure and timeline expectations, and a final destination of what I had hoped to accomplish with my research. However, this proved to not be as realistic as I had intended. The global pandemic largely contributed to altering the research I had initially intended on conducting. Moreover, I have

learned that conducting research in general requires a great deal of constant reconsiderations, alterations, flexibility in both thought and time, as well as personal grace. As a result, the iterative and reflexive nature of my research has certainly been brought to the forefront. I learned to release my strong adherence to perfectionism that I had always upheld and allowed my “road map” to take me in slightly different directions in an effort to complete my research well but also within a more appropriate timeframe. This deviation proved to be a beneficial route given the demands of my full-time career and my own personal life. It also fostered greater academic, professional, and personal growth.

Second, having completed courses on research in education provided me with methodological knowledge so that I could understand the many facets of my study. This knowledge allowed me to view my study holistically and spend less time “learning as I went”. These courses and the instructors collectively gave me a subjective frame of reference for the potential challenges I may encounter and the attitudes I may have toward my research. Based on my personal evaluations of the courses and instructors, I was able to glean inferred information on the process beyond the explicit strategies and methodologies. In addition, having a team of supportive and experienced educators including department librarians and my thesis supervisor and committee assisted in my understanding of literature searching, troubleshooting, the overall structure and review of my research, as well as timelines and expectations (Ayala et al., 2019). Their expertise and mentorship gave me the guidance, understanding, and confidence I needed to complete this research. I also benefitted from the support of a fellow graduate student who introduced me to a research writing retreat. Though traditionally these take place in person, I appreciated that these were modified to include those of us working virtually. Having this

designated writing time assisted in generating motivation and inspiration, and ultimately holding me accountable for completion of sections of this study (Ayala et al., 2019).

Third, after my review of various study designs through this scoping review, I was able to reflect on how I would structure, discuss, and ultimately present my own work. Whether the articles I read were strong, well-written and put-together, or lacked detail, I found them all to be helpful in guiding my understanding of this subject and the technical reporting aspects in each their own way. The screening of research in this scoping review also informed me of ideas for future research, including which questions I should be asking and in what ways I could best share information. Finally, this study sparked interest into future areas of research, as well as helped me consider what I can utilize from it to bring into my professional world at a school and board level as I discuss in my next steps.

### *Challenges*

My interest in, eagerness for, and dedication to completing this degree and engaging in research remained strong throughout. I was also equipped with some prior knowledge and understanding from my undergraduate and post graduate degrees. Additionally, I had been a passenger on the adventures of family members and friends who had already pursued this academic path. However, there were several facets that presented as somewhat of a challenge with obstacles to overcome as I completed this study. I was apprehensive as I believed at the time that these challenges were larger than what they were as I discuss below:

**The “obstacle” in the mirror is smaller than it appears.** First, there were several technicalities that I was not familiar with as I proceeded in this scoping review. Although I am familiar with traditional searching of databases, I did not learn of the detailed and specific way to search to a point of research “saturation” until I began this process. This method of searching

involved the use of boolean operators, essentially a normal search of a database but with sophisticated jargon that would refine my search and ensure I exhausted each database, retrieving all research articles possible that I would later choose to include in (or exclude from) my study. Despite seeking the university librarians' guidance and researching and learning about the process myself, it took countless hours beyond what I was expecting to complete a quite advanced-level search at a beginner level. Additionally, despite how intimidating this appeared during the first initial stages of this segment of my research and how quite laborious it actually was, I do feel quite competent and confident in conducting further searches using this methodology and the strategies I developed. Ultimately, I learned that this obstacle was in fact not as profound as I had expected and would compare this aspect of my thesis process to 'learning the rules of the road' – a necessary step in becoming a competent driver. However, one cannot become a competent driver without drawing upon their own lived experiences of driving practice, including experiencing different driving conditions first hand and learning to anticipate other drivers' actions, for example.

In terms of article screening for this scoping review, it took additional time to complete the initial screening of the articles I gathered as I was not as well-versed in the strategies and equipped with the experienced skillset helpful for including or excluding articles efficiently based on my subjectivity identified criteria. Despite the use of Covidence (for which also required time to learn, understand, and practice), my search yielded thousands of articles, many of which were seemingly appropriate for my study in some way. Although with time and ongoing practice I did become more comfortable with and fluent at this process, it appeared at first to be a daunting task that I eventually learned was (again, although time-consuming) not as difficult as I had made it to be in the beginning.

When I began reading and eventually analyzing the data presented, I truly understood how iterative of a process it was to complete a scoping review. Just as I began to make revelations, new themes emerged that challenged my perspective, encouraging me to reconsider how I presented my information, both in content and format. Completing the thematic analysis for this scoping review was also, without question, incredibly rigorous and took several weeks longer than expected, as is most commonly noted by other researchers new to this stage (Bonfield et al., 2018).

Finally, due to the global pandemic of Covid-19, I had to abandon my initial empirical hospital-based research idea and peruse a scoping review. Although my research ideas and questions remained unchanged, I felt disheartened and at a road block when I was required to adapt to and recreate my thesis proposal and now thesis. During the first undertaking of my research, I spent a significant amount of time during my introductory research courses and time outside of class understanding, researching, learning about, and connecting with those who had a strong understanding of my empirical research idea. As such, I felt as though I would have to restart. Ultimately, I learned that it was not a significant change of research topics or even of the methodology (as in my previous methodology I would have still been engaging in much of this style of research as well), and in learning about what I had previously, I was able to better understand the articles I studied and consider future research from a more informed perspective. Ultimately, this additional time spent, study change and learning curve, as well as my level of experience are generally known to act as barriers that impede the process, and certainly made it challenging to maintain motivation and carry out my research in a timely manner (Ayala et al., 2019; Bonfield et al., 2018).

More personally, while simultaneously immersed in a full-time career as a teacher during a global pandemic that demanded more of my work ethic, I often found it challenging to balance the sheer volume of work, life, and graduate studies. I had only ever known being a full-time student, and so the idea of focusing the majority of my attention on a responsibility other than school, such as on my career and other facets of life, was unsettling. It required me to continuously shift my focus (or “change gears”), and learn how to give myself grace when I was tasked with dividing my attention. At this, I was a new teacher, in my second year of practice and my first year of permanency - some would call this their “impressionable” year, whereby you are tasked with additional responsibilities, encouraged to participate in school-based and student-centred engagement activities, attend professional development conferences and training sessions for new learning methodologies and technological tools, and where reporting periods, individualized educational plans, and other documentation procedures and administrative responsibilities appear daunting as you navigate “reinventing the wheel” for daily lessons plans and assessments. Teaching both in-person and virtually during a pandemic also presented obstacles in both teaching and learning by demanding more of my time and digital literacy. I often found myself sitting stiffly at my desk, eyes focused on my screen, considering details in both education and academia for hours per day almost every day of the week with very little time to decompress. The negative and detrimental physical and social emotional impacts of this experience was greater than I had expected, even as someone who enjoys technology and spending time in this environment. However, from this, I learned about my motivational habits and what I required to thrive in both my academic and professional life. What I felt I could benefit from in these areas was not largely all immediate supports, but rather experiences I wish I would have had and would suggest as next steps in future research and practice to reduce the size

of some of the obstacles that may present for others. This ultimately correlated greatly with my research question and findings as discussed in the following section.

### **Next Steps**

While this study generated a wealth of knowledge regarding interprofessional collaboration, many of the studies were based in the elementary division. This is not concerning, considering much of the therapeutic services take place when children are learning to read, write, speak, and understand language in general. However, despite some potential generalizability, the lack of studies in middle and high schools brings forth interest for future research in terms of how HPs can be useful for working with these populations. Additionally, future research could consider the voices of other types of HPs, not just limited to SLPs, OTs and PTs. This would expand on our understanding of interprofessional collaboration, including of how models of this may vary depending on the HP in question. Furthermore, some studies took place in a post-secondary environment whereby student teachers and student HPs worked together in a collaborative aspect during a practicum experience. It was either a module as part of their practical experience, or in a few cases, was an entire course unto itself dedicated to ongoing interprofessional collaboration whereby students were required to apply these understandings to their own practical experiences. While there are several organizational and logistical implications that coincide with implementing this, the findings concluded that implementing this ‘pre-service’ experience had a positive and altering impact on in-service teachers and HPs alike. Therefore, this brings forth some considerations as to whether education and HP programs should bring forth or potentially even mandate interprofessional collaborative experiences. Future research on this matter would be useful to consider in an effort to strengthen our education and healthcare programs, as well as the perceived competencies and levels of confidence of both educators and HPs alike.

### **Conclusion**

Overall, interprofessional collaboration is essential to the ongoing success of students and patients respectively, as well as educators and HPs alike. Interprofessional collaboration provides

opportunities for educators and HPs to learn from and assist one another, practice reflexivity, and integrate their knowledge, skills, and abilities in a way that supports their students and patients.

Research highlights how educators and HPs have long advocated for increased collaboration with one another for the aforementioned reasons. This study provides valuable insight into why we must listen to these requests and suggestions for how collaboration can be executed.

Ultimately, this study sets the foundation for future research and practical application on interprofessional collaboration, with specific regards to school-based educators and HPs.

### References

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