COLLABORATION BETWEEN GENERAL EDUCATION TEACHERS AND OCCUPATIONAL THERAPISTS IN CLASSROOMS:

A LAYERED ANALYSIS OF PROFESSIONAL PRACTICE IN THE USA

Submitted in fulfillment of the degree of

Doctor of Professional Studies (Research)

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CERTIFICATION OF DISSERTATION

I declare that the work presented in the thesis is, to the best of my knowledge and belief, original and my own work, except as acknowledged in the text, and that the material has not been submitted, either in whole or in part, for a degree at this or any other university.

Debra Marie Wilson   *1-23-15*

_____   _____

Signature of Candidate   Date

ENDORSEMENT

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Signature of Supervisor/s   Date

_____   _____

DEDICATION

To my parents

Joyce Brady and Lester Wilson, Jr.

who taught me the power of laughter

To Elaine Woolley

for her belief in me

To my family

Robert, Shalea, Daniel, Aunt Sandy, Uncle Con, and Uncle Jim

for cheering me on and filling my life with much joy and love

ACKNOWLEDGMENTS

ABSTRACT

Collaboration research focusing on occupational therapists and general education teachers working in the classroom environment is a timely issue. Indeed collaboration as a concept, is a pressing issue in contemporary literature and in practice. Within the context of USA practice and Federal regulations collaboration is deemed best practice for providing services for students with special needs in the least restrictive environment. In addition, new guidelines encourage collaboration in general education classrooms to support all children in the classroom, not only children with special needs.

Though legal mandates relating to teaching children in the least restrictive environment underpin the need for collaboration, the literature review provides evidence that research highlighting what collaboration looks like in the classroom setting is unreported. Gaps in the literature indicate that while collaboration is deemed best practice, the extent to which occupational therapists and general education teachers are collaborating is limited. The literature review findings include disparate definitions of collaboration, a wide-range of inconsistent terminology, a general lack of research crossing disciplinary boundaries, and limited practical application for guidelines for collaboration in general education classrooms. There is a need for research to inform professional practice and highlight promising new knowledge underpinning successful collaboration in education.

The purpose of this study is to combine a workplace-based project with rigorous research to provide a deep understanding of the phenomenon of collaboration between occupational therapists and general education teachers working together in inclusive classrooms. S'cool Moves, Inc. is an education consulting company providing staff development and training for United States school districts, organizations, and associations. As S'cool Moves evolved and provided training aimed at improving collaboration and professional practice, gaps in academic research and the professional knowledge base became evident. The study's objectives are to a) close the gap in research regarding occupational therapist and general education teachers collaborating in the classroom environment, b) contribute to the current body of knowledge and professional practice through completing a rigorous research study

focusing on collaboration between occupational therapists and general education teachers, c) revise the current S'cool Moves training framework to reflect the research findings, and d) evaluate the extent to which the revised training framework meets the needs of the stakeholders who participated in S'cool Moves training sessions.

The study seeks to answer two research questions, 'How and to what extent do general education teacher and occupational therapist pairs in the USA collaborate successfully and to what extent do the systems, assumptions, and worldviews enable or disrupt such collaboration in primary school classrooms?' and 'How and to what extent does the S'cool Moves collaboration training framework integrate relevant theory and meet the needs of stakeholders in the teacher-occupational therapist collaborative relationship.'

The methodology adopted by the study assumes a pragmatist paradigm and mixed methods research design. Phase one of the study is qualitative and through the use of semi-structured interviews, seeks to uncover key elements of successful practice and deep insights in order to understand how the occupational therapists and general education teachers developed collaborative relationships that enabled positive outcomes for students in the classroom environment. Based on these findings, the S'cool Moves training program is refined and implemented. Phase two of the study seeks to validate the findings of phase one in terms of an evaluation of the S'cool Moves revised training program and the extent to which it meets the needs of the stakeholders.

An underlying premise of the study is that observable behavior is the manifestation of layered meanings and interpretations that are not as easily observed. In the case of studying the phenomena of successful collaboration between occupational therapists and general education teachers, the Causal Layered Analysis (CLA) theoretical framework is adopted which proposes that the litany (headline data) is underpinned by a systemically structured environment created based on the assumptions of those associated with the phenomena either as active decision makers or those who function within systems created by others. The assumptions are representative of the dominant worldviews those associated with the phenomena and the assumptions are in turn, at the deepest level, influenced by long-held myths and metaphors largely stemming out of their socialization and education.

Based on the research findings the definition of collaboration was refined, an A-E Collaboration Cycle framework was developed and the 'One for All' collaboration strategy was introduced.

The study contributed to professional practice by applying research findings to underpin a training framework designed to provide evidence-based guidelines and strategies to enhance collaboration between occupational therapists and general education teachers working in classroom settings.

The study contributed to methodology in that CLA is applied outside its originating 'futures studies' context and evidences its appropriate application in contemporary social science and educational research contexts.

Through conducting the complex interweave of workplace-based projects and research, the case of developing professional leadership is evidenced by the multi-dimensional outcomes of the study. The ability to integrate empirical, methodological, and theoretical knowledge that engages current work-based issues is illustrated and promises to broaden paradigms traditionally associated with the nexus between Higher Education and professional development.

The study is limited in that the research findings can only be transferred or generalized in so much as those reading the study relate to the findings, trust the audit trail, find the researcher trustworthy, and view the research as supporting or enhancing previous theory generated from the fields of occupational therapy and education. Future research is required to expand the findings to rural, urban, and suburban school districts throughout the US, as well as include other multidisciplinary support staff in the research.

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ABBREVIATIONS USED IN THIS DOCUMENT

- **ABA** - Applied Behavioral Analysis

- **ADHD** - Attention Deficit Hyperactivity Disorder

- **ADL** - Activities for daily living

- **AOTA** - American Occupational Therapy Association

- **APA** - American Psychological Association

- **CCSS** - Common Core State Standards

- **CLA** - Causal Layered Analysis

- **DIBELS** - Dynamic Indicators of Basic Early Literacy Skills

- **DPST** - Doctorate of Professional Studies

- **ELL** - English Language Learner

- **IDEA**- Individual with Disabilities Education Act

- **IDEIA** - Individuals with Disabilities Education Improvement Act

- **IEP** - Individualized Education Plan

- **IQ** - Intelligence Quotient

- **IRA** - International Reading Association

- **MTSS** - Multiple Tiers of System Supports

- **NCLB** - No Child Left Behind

- **NYC DOE** - New York City Department of Education

- **OT** - Occupational Therapist

- **OTA** - Occupational Therapy Assistant

- **OTR/L** - Occupational Therapist, Registered, Licensed

- **PBIS** - Positive Behavioral Interventions and Supports

- **PLC** - Professional Learning Community

- **PT** - Physical Therapist

- **RTI** - Response to Intervention

- **SESG** - Special Education Students at a Glance

- **SLD** - Specific Learning Disability

- **SMP-P** - The Sensory Processing Measure – Preschool

- **SPSS -** Statistical Package for the Social Sciences
- **US** - United States
- **USA** - United States of America
- **USQ** - University of Southern Queensland
- **WBL** - Work-based Learning

CHAPTER 1

INTRODUCTION AND OVERVIEW

1.1 INTRODUCTION

This dissertation is the culmination of the researcher's learning journey and a significant work-based learning (WBL) project undertaken as a practitioner researcher in the Doctor of Professional Studies (DPST) program at the University of Southern Queensland (USQ).

Within the context of United States professional practice for occupational therapists and general education teachers, collaboration is deemed best practice for providing services for students with special needs in the least restrictive environment. In addition, new federal and state guidelines encourage collaboration in general education classrooms to support all children, not only children with special needs. A gap in the academic literature of both fields indicates the need for research that informs professional practice and provides a framework for enhancing collaboration. The aim of establishing a collaborative environment in general education classrooms is to achieve more inclusive classrooms where all students are able to succeed.

According to the American Occupational Therapy Association (AOTA, 2013), occupational therapists are encouraged to provide proactive support to assist children in the general education classroom. This is new territory for occupational therapists and teachers alike, as they seek to discover how best to move forward with collaboration within the general education classroom. Occupational therapists must continue to provide services to children with Individual Education Plans (IEPs) while simultaneously being asked to expand their services to include support for teachers and students within the general education classroom

environment (Clark & Chandler, 2013). Research is needed to help guide practice and provide strategies for enabling effective collaboration.

1.2 BACKGROUND

S'cool Moves, Inc. is an education consulting company providing staff development and training for United States school districts, organizations, and associations. For fifteen years, S'cool Moves' mission has been to translate research into practical application for multidisciplinary staff members who want to begin collaborating with one another or improve current collaboration practices.

As S'cool Moves evolved and provided training aimed at improving collaboration and professional practice, gaps in academic research and the professional knowledge base became evident. Rigorous research designed to guide professional practice for support staff and classroom teachers in their efforts to collaborate for student success, simply did not exist.

A work-based research study was both necessary due to the gaps in the literature but also as expressed as a pressing need from practitioners throughout the United States. In responding to this need and gap in the knowledge a rigorous research project was developed to inform practice, increase the associated knowledge base, and lead to revising the current S'cool Moves training framework.

The perceived gaps in research and practice needed exploring. The founder of S'cool Moves engaged workshop participants in structured discussions regarding their collaborative practices by asking questions focusing on how staff members were collaborating within federal and AOTA guidelines. The responses generated from the attendees created a similar pattern regardless of where the training was located in the United States; simply put, there was a general feeling of confusion regarding protocol, and a lack of research to guide practice.

S'cool Moves workshops consisted of strategies and techniques to support collaboration. However, the framework was not underpinned by research or an overarching multidisciplinary framework. Thus, there was a need for advanced education and university

support to design a rigorous research project to integrate empirical, methodological, and theoretical knowledge that engages the work-based issues and contributes to professional practice.

1.3 CONTEXT

The context of this project is threefold: institutional, professional, and personal. To fully understand the extent of the research project, one must understand the context—the circumstances that allow for greater understanding of the rational for pursuing advanced studies. By choosing a Professional Doctorate, the focus of the research shifts toward improving the professional practice. The Doctor of Professional Studies is an accredited Level 10 (highest level) Australian Qualification Framework program. It is a program of study that makes it possible for candidates to research a problem or issue in the workplace and make a significant and original contribution to knowledge and professional practice (Maxwell & Kupczyk-Romanczuk, n.d.). The learning path involves framing the research in terms of institutional, professional, and personal contexts.

1.3.1 Institutional Context

There are many institutions to choose from for advanced degrees; however, the University of Southern Queensland's Doctor of Professional Studies program is deemed the best fit for its focus on teaching students how to conduct rigorous research with the aims of solving work-based issues.

The rationale for pursuing a professional doctorate include:

> the ability to tailor the project to address the needs of the workplace
>
> raising the professional level of expertise and knowledge brought to the workplace
>
> establishing a partnership between the university and the workplace
>
> participating in rigorous research within a doctorate program that supports research projects that focus on solving workplace issues.

Partnering with an institution through an advanced study program increases the likelihood that this study will meet rigorous requirements put forth by both the institution itself and

other research communities. Professional doctorate programs are reported to lead to higher success rates due to meeting the needs of the professional in the workplace through its structured and scaffolded approach (Wildy, Peden, & Chan, 2014).

From the onset of entering the Doctor of Professional Studies program, the structure and scaffolding is evident through the availability of the professors to discuss potential options for research design and project outcomes. Through conversations and exploring research methodologies, it was determined that developing the research project using an emerging Futures Studies research method, Causal Layered Analysis (CLA) would meet the transformational objectives of the study. The CLA theory and framework holds promise for providing the desired information essential for completing the proposed workplace project due to its structured and layered approach to gathering meaningful data that identifies, actions and tracks transformational spaces underlying real life practice issues (Inayatullah, 2012).

The education and therapy communities, being unfamiliar with CLA, are anticipated to benefit by research completed using CLA methodology in order to better understand the deeper thinking and meanings underpinning collaboration efforts and behavior. In addition, applying the CLA theory and framework to education research may expand the use of CLA in the social sciences and provide a promising methodology that expands current methods for researchers in the fields of education and occupational therapy.

1.3.2 Professional Context

S'cool Moves, Inc. provides educational training for teachers and support staff focusing on strategies to improve collaboration in the general education classroom. Throughout the evolution of S'cool Moves, the effectiveness of the training was informally documented through casual conversations, emails, and phone calls; however, during workshops, many questions are raised by participants regarding what collaboration actually looks like in the classroom, and how to successfully collaborate inter-professionally.

These questions merit deeper research to understand the phenomenon of collaboration. The existing academic literature provides limited insights and strategies regarding collaboration

within general education classrooms. Expanding on the professional body of knowledge and contributing to professional practice are the outcomes of rigorous research within the Doctor of Professional Studies program (Maxwell & Kupczyk-Romanczuk, n.d.).

1.3.3 Personal Context

A personal commitment to being a lifelong learner and reflective practitioner underpins the desire to pursue a Professional Studies doctorate. Through participation in advanced studies, personal growth is engendered in the areas of being challenged intellectually, understanding how to design a research project from beginning to end, expanding one's views, challenging long-held assumptions, and journeying with a different perspective to more theory-orientated studies or views that were held prior to advanced studies (Aspin & Chapman, 2001). The Doctor of Professional Studies program is noted as being dedicated in the development of 'scholarly professionals' rather than 'professional scholars'. This succinctly and clearly illustrates my personal motivations and the approach adopted by this study.

Personal knowledge gains in the areas of research methodology, academic vocabulary, and writing proficiency are additional personal outcomes desired from the completion of the Professional Studies doctorate. Personal knowledge gains expand into professional gains by bringing a strong personal base of experience, knowledge, and awareness to the professional workplace.

A desire to be a reflective practitioner and personalize the learning process in order to assign deeper meaning and understanding underpins entry into the Professional Studies program, must be maintained throughout and ultimately become part of one's ongoing professional practice (Bringle & Hatcher, 1999).

1.4 Work-based Project

The aims of this work-based learning project are multifaceted, and they include: personal growth through embracing lifelong learning, designing research that yields original professional practice knowledge, and contributing to institutional and organizational knowledge.

Specifically the project aims are as follows:

- Close the gap in research regarding occupational therapists and general education teachers collaborating in the classroom environment
- Contribute to the current body of knowledge and professional practice
- Design a research study to gather data that answers the research questions regarding how occupational therapists and general education teachers collaborate within the classroom environment
- Revise the current S'cool Moves training framework to reflect the research
- Evaluate the extent to which the revised training framework meets the needs of the stakeholders who participated in S'cool Moves training sessions

The work-based project outcomes are twofold. Phase 1 of the project entails completing interviews using CLA to compile and analyze data regarding how occupational therapists and general education teachers collaborate with one another within the context of general education classrooms. The S'cool Moves current training framework is revised based on the research findings.

Phase 2 of the project consists of using the revised training framework during training sessions and evaluating the extent to which the participants valued the enhanced techniques and insights, and whether the training met their needs in terms of improving collaboration with other support staff and teachers. Data from the evaluations determine if the S'cool Moves revised training framework positively informs professional practice and meets the needs of the stakeholders.

1.5 SCOPE

This study is a phenomenological study intended to gather information that provides a snapshot of how occupational therapists and general education teachers collaborate with one another. Because limited scholarly research is presently available, initial research data needs to be gathered in order to determine the best course of action for continued scholarly research. Though utilizing a mixed method study, it is important to note that the theoretical underpinnings and key assumptions of this study are founded in the pragmatist paradigm; this

paradigm is defined by informing practice through the use of mixed methods to provide a holistic understanding of the research problem and possible solutions to the work-based challenges presently encountered (Lester, 1999).

In addition, the epistemological base of work-based learning tends to be embedded in pragmatism (Lester & Costley, 2010). Choosing a mixed methods study aligns with the epistemological and ontological underpinnings of the pragmatist paradigm.

Due to the need to narrow the focus of this research project, only collaboration between general education teachers and occupational therapists is explored, although multidisciplinary staff members and administrators also participate in or enable collaboration within the context of United States school systems. To include support staff such as school leaders, physical therapists, autism specialists, and behavioral specialists would be beyond the scope of this project.

The scope of this project includes:

- ☐ conducting a phenomenological literature review to fully understand the nature of the problem and the gaps in research
- ☐ designing a phenomenological sequential mixed methods research project to explore the collaborative relationships between occupational therapists and general education teachers, and apply newfound knowledge to the revision of the current S'cool Moves training framework
- ☐ analyzing Phase 1 data using the CLA framework and content analysis
- ☐ interpreting the data results and presenting the information in a logical sequence
- ☐ underpinning the revised S'cool Moves training framework with evidence-based research gathered from Phase 1, the qualitative phase of this study
- ☐ designing the artifact—the revised training framework—to reflect the results of this study; this process includes reviewing the current content and providing rationalization as to what remained, what was revised, or what was added to the current workshop training booklet

☐ evaluating to what extent the revised training framework met the needs of the stakeholders by administering an evaluation survey at the conclusion of ten training sessions

☐ providing quantitative data in Phase 2 to report the findings from the evaluation surveys

☐ compiling and organizing the research findings using APA-style dissertation protocol.

1.6 PURPOSE

The reauthorization of the Individual with Disabilities Education Act (IDEA) mandates that students with disabilities be taught in the least restrictive environment so children can participate in the general curricula (Wells, 2009). According to Wells (2009), general education teachers may experience anxiety due to limited training and knowledge dealing with children who have special needs. It is recommended that teachers receive guidance through collaboration with support staff not only for children with Individual Education Plans (IEPs), but also for children without IEPs in the general education classroom (Clark & Chandler, 2013).

Schools have answered the call for collaboration through the development of Response to Intervention (RTI) models. RTI whole-classroom instruction requires classroom teachers to provide instruction for all students before children are diagnosed as needing special services (Murawski & Hughes, 2009). Collaboration has been shown by research to be a logical answer to meeting IDEA mandates and RTI instruction directives that call for modifications and accommodations for any children showing signs of academic or behavioral distress during RTI Tier 1 classroom instruction (Clark & Chandler, 2013).

Collaboration ensures that professionals work together to enhance student achievement (Goddard, Goodard, & Tschannen-Moran, 2007). Current school legislation mandates yearly progress for all students and subgroups, including those who have traditionally been unsuccessful in the classroom (Reutebuch, 2008). Administrators and teachers feel enormous pressure to move all students toward proficiency (Vannest, Temple-Harvey, & Mason, 2009).

Despite administrators' and teachers' best efforts, low-performing students are resistant to benefit from intervention targeting specific learning needs in all academic areas, though especially in reading achievement (Wilson & Heiniger-White, 2008). Contributing factors include class size, high student mobility rates, and level of parents' education (Shippen, Houchins, Calhoon, Furlow, & Sartor, 2006). Additionally, teacher classroom management, teacher expectations, and students' time on task contribute to reading failure (Shippen et al., 2006).

Some studies suggest that the association between disruptive behavior problems and academic underachievement is largely explained by co-morbid Attention Deficit Hyperactivity Disorder (ADHD) (Reinke, Herman, Petras, & Ialongo, 2008). Administrators receive numerous referrals on a daily basis due to student inattention, misbehavior, and inability to complete assignments (Dunn, Cole, & Estrada, 2009).

Academic underachievement and behavior challenges rarely exist in isolation. Students with emotional and/or behavioral challenges are twice as likely to drop out of school than students without these issues (Vannest et al., 2009). Due to the increasing prevalence of self-regulation issues, occupational therapists should be prepared to intervene in the classroom setting and offer assistance (Parham, Ecker, Kuhuneck, Henry, & Glennon, 2007). Whether for academic or behavioral support, occupational therapists and teachers agree that collaboration contributes positively to student outcomes (Amabile, 2001; Bronstein, 2003).

A gap exists in teachers' knowledge of techniques used by the field of occupational therapy that could enhance management of behavior issues associated with poor self-regulation and behaviors associated with ADHD (Campbell, Missuina, Rivard, & Pollock, 2012).

Despite reported benefits of occupational therapists potential contributions through collaboration with general education teachers, scholarly research from the education and therapy fields suggests that there is limited collaboration between members from these two disciplines (Vincent, Steward, & Harrison, 2008). As an example, a recent article in *The Reading Teacher* discussed at length the value of collaboration within the RTI framework between teachers and support staff (Shevellar, 2011). The support staff listed included reading specialists, literacy coaches, special educators, speech and language teachers, and

psychologists. Occupational therapists were left out of the discussion, yet research strongly links occupational therapy intervention to academic achievement (Cahill, 2012; Cahill & Lopez-Reyna, 2013; Dowling, Powell, & Glendinning, 2004; Eccleston & Khaimah, 2010; Hillier, Civetta, & Pridham, 2010; Riedy, 2008; Watts-Taffe, 2012). The lack of connection between research in the occupational therapy profession and research in the education community is justification, in part, for this research project.

It is recommended by the AOTA that occupational therapists expand their service delivery to the general education classroom in order to provide support within RTI frameworks (London, 2012). Though many school districts continue to use the direct service delivery model (also referred to as the pullout model), this model does not further skills for students in the classroom setting (Rudebusch & Wiechmann, 2011).

The results of this study could contribute positively to the fields of occupational therapy and education by providing a deeper understanding of the process of collaboration and the perspectives of those attempting collaboration in the general education classroom for the benefit of all students. RTI requires collaboration among support staff and teachers, though classroom teachers receive limited training in collaborative practices (S. Kemmis, 2007).

According to Bean et al. (2012), more research is necessary to gain a better understanding of how RTI impacts school reforms such as improved collaboration between support staff and general education teachers. The aim of this research study is to focus specifically on collaboration between general education classroom teachers and school-based occupational therapists, an area that has limited or no research available at this time.

This study explores the relationship within teacher-therapist pairs as they collaborate in general education classrooms and intended to help guide practice for teachers and occupational therapists as they negotiate new territory within general education classroom. This topic is timely, as there is interest in the education and therapy communities in conducting research that informs professional practice in the area of collaboration.

1.7 RESEARCH QUESTIONS

The CLA theoretical framework provided the structure for designing the research questions. The CLA framework is applied to the qualitative questioning strategy in order to provide deep insight as to how the teacher-therapist pairs created successful collaborative relationships within the context of the classroom setting. Based on the work-based issues and the literature review, the research questions serve two purposes: to provide insights to solve the work-based issues, and to fill the research gap discovered through the literature review process.

Research Question 1: *How and to what extent do general education teacher and occupational therapist pairs in the USA collaborate successfully and to what extent do the systems, assumptions, and worldviews enable or disrupt such collaboration in primary school classrooms?*

In order to answer the first research question, four sub-questions were designed to provide deeper insights using CLA methodology. The sub-questions answer the overarching question in detail.

> **Sub-Question 1:** *How do teacher and therapist pairs describe their collaborative relationships while working together in an inclusive general education classroom?*

> **Sub-Question 2:** *What in the system is enabling or limiting more successful collaboration?*

> **Sub-Question 3:** *How have the pairs' perceptions or assumptions changed due to their collaborative relationships?*

> **Sub-Question 4:** *How do the pairs describe their collaborative relationships using myth and metaphor?*

An additional question is asked to assess the degree to which the revised training framework met the needs of the stakeholders attending S'cool Moves training sessions.

Question 2: *How and to what extent does the S'cool Moves collaboration training framework integrate relevant theory and meet the needs of stakeholders in the teacher-therapist collaborative relationship?*

This question is essential for determining if the research findings are successfully integrated into the revised training framework in such a manner as to positively inform professional practice based on the view of the stakeholders.

1.8 METHODOLOGY

The methodology adopted by the study assumes a pragmatist paradigm and mixed methods research design. Phase 1 of the study is qualitative and seeks to provide deep insights into the collaborative relationships between occupational therapists and general education teachers. Phase 2 of the study is quantitative and seeks to evaluate the extent to which the participants valued the enhanced techniques and insights, and whether the training met their needs in terms of improving collaboration with other support staff and teachers.

In Phase 1, Causal Layered Analysis and semi-structured interviews comprise the design for the research portion of this folio project, with the objective of applying rigorous research methodology to explore the collaborative relationships between general education teachers and occupational therapists working within an RTI framework. "Semi-structured interviews are used to attempt to understand the world from the subjects' points of view, to unfold the meaning of their experiences, and to uncover their lived world prior to scientific explanations" (Kvale & Brinkman, 2009). Though questions are predetermined, respondents are allowed to discuss issues that may not have been considered. Using pre-determined questions provides uniformity while simultaneously exploring team experiences from participants who work in vastly different environments from one another.

Interviews are conducted with eighteen teams from locations throughout the United States. The pairs are recruited from collaboration workshops designed by S'cool Moves, Inc. and through an online newsletter mailing. Permission is granted from S'cool Moves, Inc. to recruit participants for this project. In addition, permission is received from pair supervisors or principals, as required, prior to conducting interviews. Pair locations are chosen based on

availability of participants who were collaborating within an RTI framework. Each pair consists of one occupational therapist and one general education teacher working within the classroom setting with twenty or more students. The occupational therapist and general education teacher from each pair volunteer to participate and agree to the interview.

Participants choose the location for the interview to ensure comfort and safety. Each participant is interviewed separately. The interviews are scheduled for one hour in length, with allowances made for those participants who needed extra time to answer the questions to their own satisfaction.

CLA framework assists with filtering and layering the responses from the interview transcripts. After the layering process, content analysis serves to find themes within each of the four CLA layers: litany, systemic, worldview, and myth/metaphor.

Phase 2 of the study seeks to validate the findings of Phase 1 in terms of an evaluation of the revised S'cool Moves training program. Participants attending S'cool Moves training sessions utilizing the revised training framework are asked to voluntarily complete an evaluation survey to determine the extent to which the training framework met the stakeholders' needs in terms of contributing to professional practice and expanding the scope of their collaboration efforts.

The research portion of this project culminates in a creatively published workshop booklet and small group activities within the revised framework, thus addressing the work-based issues of providing collaboration training underpinned by rigorous research that contributes to enhancement of professional practice.

1.9 ANTICIPATED CONTRIBUTIONS OF THE STUDY

It is anticipated that the study will make the following contributions:

Institutional

- ☐ Apply knowledge and skills at a doctoral level acquired through research training embedded in the program

☐ Plan and execute original research that expands the current knowledge base

☐ Demonstrate communication skills to explain and present a complex investigation of original design

☐ Write a dissertation using approved format for dissemination amongst peers, as well as national and international communities

☐ Demonstrate the use of CLA for rigorous research projects in the social sciences

Professional

☐ Develop cognitive skills that demonstrate intellectual independence and a high level of critical thinking in generating original knowledge

☐ Demonstrate the capacity to add value to, and to help sustain, contemporary learning communities in the education profession

☐ Demonstrate advanced research skills in the designing of rigorous research projects

☐ Demonstrate an advanced level of knowledge in the fields of occupational therapy and education

☐ Demonstrate awareness of ethical issues and conflicting values which may arise in professional practice and work situations

☐ Become a leading-edge professional in the education community who understands the value of research to underpin and guide professional practice

☐ Acquire the vocabulary and verbal skills to explain the research findings in a way that expands the knowledge base for peers and invites opportunities for growth in a safe, risk-free professional environment

Personal

☐ Embrace a lifelong desire to learn, as well as the value of expanding worldviews through participating in advance studies

☐ Become a reflective practitioner who takes into account a wide variety of worldviews and appreciates the contributions others make to advancing knowledge by challenging belief systems and creating opportunities for personal growth

☐ Improve the ability to read complex research and integrate new knowledge using critical thinking skills

☐ Engage with professors and participate in conversations that expand critical thinking, personal views, and professional knowledge

☐ Dedicate this learning experience to improving personal objectives and organizational aims, in addition to providing service to others

Professional Practice Knowledge

☐ Through rigorous and compelling research findings make an original knowledge contribution to professional practice and leadership in education

☐ Contribute to the advancement and future research of knowledge relating to professional practice and leadership in education

☐ Integrate empirical, methodological, and theoretical knowledge that engages current work-based issues and contributes to professional practice

☐ Increase the ability to understand complex, unpredictable, and specialized work situations requiring innovative approaches testing the limits of current knowledge

☐ Explore interdisciplinary approaches to increase understanding of complex work-based issues, with an overall goal of expanding knowledge and problem-solving abilities

☐ Contribute to the therapy and education fields by planning and executing original research that bridges the gap between research and professional practice

1.10 OUTLINE OF THE REPORT

Figure 1.1: Outline of report

CHAPTER 1	CHAPTER 2	CHAPTER 3
Introduction & Overview	The Literature Review	Research Design & Methodology
CHAPTER 4	**CHAPTER 5**	**CHAPTER 6**
Results & Interpretation	Presenting the Project Report	Conclusion

Source: Developed for this research.

Collaboration between general education teachers and occupational therapists in classrooms: A layered analysis of professional practice in the USA
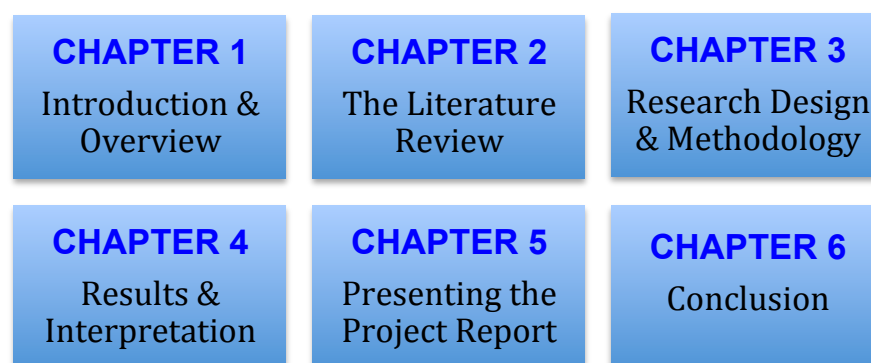
The report consists of six chapters as illustrated in Figure 1.1. Each chapter consists of sections outlined using hierarchical formatting. Each chapter provides an introduction and conclusion to guide the reader throughout the report.

The chapters highlight the steps taken to complete the study, including:

Chapter 1: Provide an overview and rationale for the study

Chapter 2: Read the literature and determine gaps, research questions, and potential contributions

Chapter 3: Design a rigorous study to answer the research questions

Chapter 4: Analyze data using Causal Layered Analysis (CLA)

Chapter 5: Report on the development of the revised training framework

Chapter 6: Share research conclusions and contributions

1.11 DEFINITIONS

Key terms specific to the topic of collaboration and pertaining to this proposed study are defined as follows:

1) *Collaboration* – The generally accepted educational definition of collaboration between professionals is the definition provided by Friend and Cook (2000): "A style for direct interaction between at least two co-equal parties voluntarily engaged in shared decision-making as they work towards a common goal" (p. 6).

2) *Response to Intervention (RTI)* – RTI is a method of identifying students with learning disabilities that involves using multiple levels, circles, or tiers of intervention, ranging from whole-group instruction to small-group or individual instruction (Murawski & Hughes, 2009).

3) *Co-teaching* – Cook and Friend (1995) define co-teaching as "…two or more professionals delivering substantive instruction to a diverse, or blended, group of students in a single physical space" (p. 1).

4) *School-based occupational therapy* – Occupational therapy services that are provided within public schools as a related service designed to enhance or support educational goals (Dunn, 1988).

5) *General education classroom* – A general education classroom is a classroom taught by a teacher who delivers the program of education that typically developing children should receive, based on state standards and evaluated by the annual state educational standards test (Hanft & Shepherd, 2008).

6) *Inclusive Classroom* – A general education classroom designed to include children with disabilities alongside their typical peers as a way to comply with the Individuals with Disabilities Education Improvement Act (IDEA). As part of the IDEA, children are to be placed in the least restrictive environment and provided with support to be successful in that environment (Silverman, 2011).

7) *Occupational therapist* – When the term "occupational therapist" is used in this document, it includes occupational therapy assistants.

1.12 CONCLUSION

Entering into an advanced program of study and completing the aims of this research project hold promise to make positive contributions to, and fill a gap in research within, the occupational therapy and education fields. The discussion moves on to describe the literature review process, the outcomes of the review process, the gaps in current research, and potential contributions of the study to the current body of knowledge.

CHAPTER 2

LITERATURE REVIEW

2.1 RESEARCH ISSUES

The purpose of the literature review is to lay the foundation for significant research. This cannot be done without a thorough understanding of the literature in the field (Randolph, 2009). The literature review serves many purposes, including delimiting the research problem, underpinning new avenues of inquiry, identifying solid approaches, helping to understand methodologies, noting gaps in the research, and establishing the reasoning behind the proposed research project's direction (Gall, 1996, as cited in Randolph, 2009).

In addition, reviewing the literature helps to establish the context of the research problem, determine the significance of possible contributions, identify clarifying vocabulary, and bring the reader up to task regarding ideas and historical contributions in the field (Hart, 1998, as cited in Randolph, 2009).

According to Randolph (2009), if the literature review is flawed, the research design may be in question as well. To avoid a flawed literature review, researchers need to determine the focus of their review. As cited in Randolph (2009), Cooper (1998) established four main focus areas for consideration: research outcomes, research methods, theories, and practices/applications (practices and applications are described by the author as a single area of focus). Establishing the focus of the literature review is key to providing a solid review that underpins the rationale for the research questions, design, and anticipated outcomes.

As discussed earlier, this work-based project was designed to provide practical solutions to a work-based problem—namely, that of collaboration between teachers and therapists working within general education classrooms. As such, the focus of this literature review is on practices *and* application, with emphasis placed on the word "and" because both practices and applications are essential elements that need to be addressed in this review. According to Randolph (2009, p. 3), "a review might concentrate on how a certain intervention has been applied or how a group of people tend to carry out a certain practice." A literature review focusing on practices and applications "help[s] establish a practical need not currently being met" (Randolph, 2009, p. 3). Designing the review using a phenomenological perspective afforded the researcher an opportunity to view the research studies similarly to how a field researcher would view people in the context of their lived experiences in order to establish patterns and uncover meaning in relationships (Moustakas, 1994, as cited in Creswell, 2009).

Studies take on the contexts and lived experiences of those who write the articles from their unique professional and personal perspectives. While reviewing articles, the researcher becomes the observer in an attempt to understand the context of the studies, the views of the researchers, the tribal knowledge of the professions represented in the research, the intersection of thought between studies, and the myopic lenses that limit expansion of thought from one field to another.

In preparation for the review, a phenomenological five-step approach formed the basis of the review process, depicted in the figure below, modified from Randolph (2009). The five-step approach includes bracketing, collecting data, identifying meaningful statements, creating comparative groupings of data, and thick, rich description of the phenomenon. Figure 2.1 illustrates the five-step approach the researcher used to develop the literature review.

Figure 2.1: Five-step approach for phenomenological literature review

1. Bracketing

2. Collecting data

3. Identifying meaningful statements

4. Creating comparative groupings of data

5. Thick, rich description of phenomenon
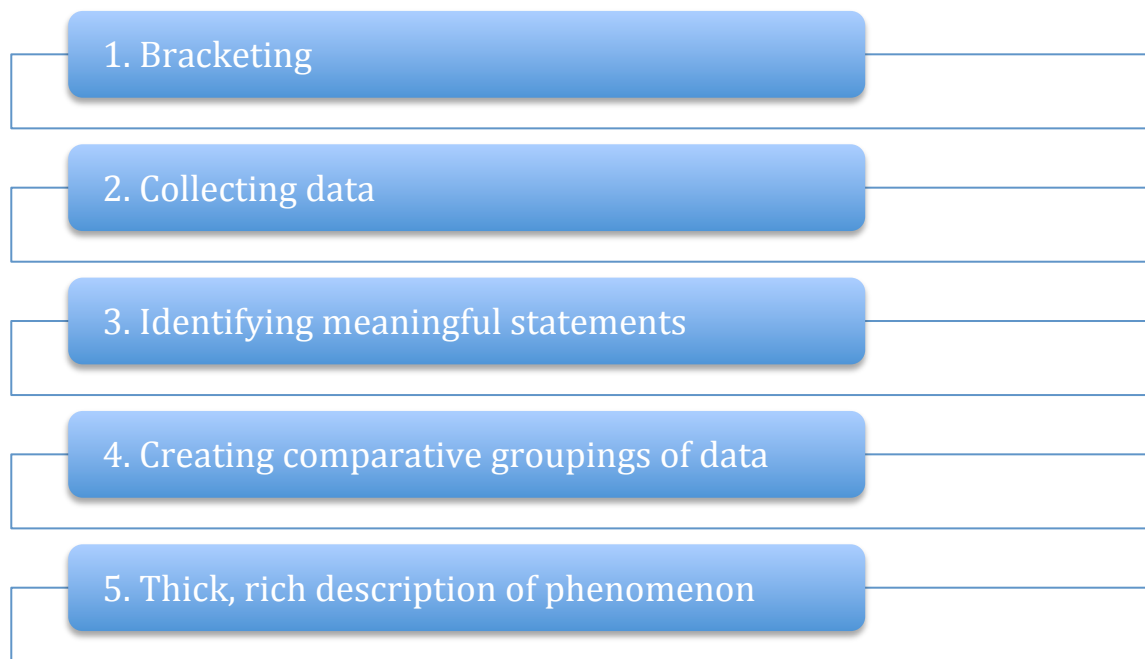
Source: (Modified from Randolph, 2009)

2.1.1   Bracketing

Phenomenological researchers use bracketing throughout the research process. Bracketing, described fully in the methodology chapter, refers to the process of identifying the phenomenon to be investigated, then setting aside one's own experience with the phenomenon in order to discover how others view the phenomenon (Creswell, 2009). Prior to deciding what literature to include or exclude, the researcher bracketed preconceived ideas, opinions, and perspectives in order to remain open to evaluating the contributions of all studies, not just the studies that reinforced the researcher's experience with the phenomenon. Because of the researcher's background, expertise in the education field, and extensive training of therapists and teachers, conscious consideration to bias when selecting articles to review played an essential role in the review; this led to better addressing the phenomenon from a broad range of worldviews. The researcher read articles thoroughly and included the contributions of each in the discussion that follows.

The bracketing process created an essential first step toward presenting a literature review that provided a holistic, descriptive account of the phenomenon from a variety of

perspectives and contexts. However, it is important to note that the researcher is based in the United States, and as such, retains a western cultural perspective despite bracketing attempts.

2.1.2 Collecting data

Initial data collection began with an electronic search of academic databases including all USQ library data basis listed on http://www.usq.edu.au/library/eservices/datahead.htm and the Google Scholar using key words and phrases such as collaboration, multidisciplinary collaboration, Response-to-Intervention, co-teaching, occupational therapy delivery models, occupational therapy and academics, RTI Tier 1 intervention, sensory processing intervention, inclusion, and special education collaboration. According to Randolph (2009), electronic searches net approximately ten percent of prospective articles; the remaining ninety percent are found by mining through references from initial articles. The electronic and Internet searches netted a good cross section of articles, eighty articles total. References from the initial search created the second layer of potential articles. The data collection stage compiled a representative group of articles, rather than an exhaustive sample.

A five-year timeframe focusing on the most current articles delimited search options; however, the search included studies beyond the preferred five-year limit if the study offered important insight, depth, or made a foundational contribution to the field (for example, being frequently cited in current literature). The initial inclusion criteria focused on all studies that helped to answer the following questions:

1) Framed within a multidisciplinary perspective, how is the term "collaboration" defined in the literature, and to what extent do definitions cross disciplines?
2) How is collaboration measured and conceptualized in multidisciplinary research?
3) How does the literature describe successful multidisciplinary collaboration, and more specifically, successful collaboration between occupational therapists and general education classroom teachers?
4) How does the literature describe the perspectives of occupational therapists and general education teachers working within collaborative relationships?
5) Which studies focusing on collaboration referenced RTI, and what was the context?

Studies were ultimately included if they helped answer the questions above and met the following criteria:

a) published in a scholarly journal or APA-style research book;

b) described the research design and used sound methodological approaches;

c) utilized quantitative, qualitative, or mixed method approaches;

d) published within the last five years, with some exceptions as noted in the above discussion; and

e) completed in the United States, or other English-speaking countries that produced articles in English.

2.1.3 Identifying meaningful statements, inclusions, and exemptions

The researcher read each article and highlighted essential elements or themes represented in the data. Grouping articles assisted with comparing and contrasting studies. After extensive review, the following categories emerged: multidisciplinary research, studies from the field of occupational therapy, studies from the field of education, AOTA policy articles, and RTI-specific research. Key themes and meaningful statements determined the value of the article in terms of answering questions asked at onset of the data collection phase. In addition, the researcher noted which articles included or excluded mention of foundational authors frequently cited across disciplines or within specific disciplines. An important part of the review process was stepping back, observing, and asking, "Why is this author's definition used in this article, but not used in another article in the same field?" or "Why is there not reciprocity between fields when discussing similar issues and citing seminal work from complimentary research?" By deeply understanding past research, the foundation is laid for significant current research, as well as piloting the direction for future research.

2.1.4 Creating comparative groupings of data

Allowance for figures or tables created more meaningful and illustrative options for condensing text that would otherwise be cumbersome to report verbatim. To allow for clearer interpretation and deeper understanding of the phenomenon reported, a narrative precedes or follows figures and tables (Randolph, 2009).

2.1.5 Thick, rich description of phenomenon

Ultimately, the literature review includes a rich synthesis of the data, while at the same time rationalizing the scholarly significance of the research problem. In addition, a clear explanation of the literature review process presents an opportunity for readers to follow the process from start to finish (Randolph, 2009). The DPST program encourages researchers to maintain learning journals documenting thoughts, perspectives, potential bias, and questions in order to deepen and share insights. In keeping with the traditions of the program and phenomenological research, excerpts from the researcher's learning journal are included in Appendix A.

2.2 INTRODUCTION

The role of collaboration in the work place extends beyond school settings. In order to capture the essence of collaboration in various fields, multidisciplinary definitions, terms, and models of collaboration comprise the initial discussion for the literature review. The scope of the discussion narrows from a broad multidisciplinary view of the research to a more narrowly defined review focusing exclusively on school-based collaboration between teachers and therapists including perceptions, reported barriers, successful attributes, and the role of RTI. Finally, the chapter discussion summarizes what has been learned during the review process; this, in turn, leads the way to a full discussion of the research problem and design in Chapter 3.

2.3 DEFINITIONS, THEORIES, MODELS, AND PERCEPTIONS

The literature review begins with exploring definitions of collaboration in multidisciplinary research. A discussion of how the definitions of collaboration are conceptualized and measured in the research follows. A discussion of successful attributes contributing to collaborative relationships, along with the perceptions of those involved, finalizes this section of the review process.

2.3.1 Definition of collaboration

The first guiding question for the review process is as follows: "Framed within a multidisciplinary perspective, how is the term 'collaboration' defined in the literature, and to what extent do definitions cross disciplines?"

Collaboration has been defined in a variety of ways; often, the term is cause for confusion in the literature. The DPST is a multidisciplinary program that encourages research practitioners to bring a broad range of perspectives and reflective practice to their work-based learning projects (Gregory, 1994). Expanding beyond the traditional parameters of education and occupational therapy fields leads to the integration of theories and models that may not be currently present in those fields.

There are a wide variety of theoretical perspectives within multidisciplinary research; this suggests a need for scholars to come to some consensus as to how to define collaboration (Thomson, Perry, & Miller, 2007). Lacking a cohesive definition limits the rigorous research on the subject; however, there is an ever-expanding body of literature highlighting the benefits of collaboration within a multitude of settings (London, 2012).

To better understand the present definition of collaboration, it is important to note the recent historical evolution of the term. In the early 1980s, collaboration was seen as a way to expand limited resources, whereby an organization with fewer resources would collaborate with an organization who had more resources available (Daniels & Khanyile, 2013). According to Daniels (2013), in the 1990s collaboration dominated the literature in the form of building human, physical, material, social, or cultural capital. London (2012, p. 2) states, "The search for a more comprehensive definition leads to a myriad of possibilities each having something to offer and none being entirely satisfactory on its own."

A definition of collaboration frequently cited from the field of applied behavioral science is as follows: "A process through which parties who see different aspects of a problem can constructively explore their differences and search for solutions beyond their own limited vision of what is possible" (Wood & Gray, 1991, p. 143). Gray's definition is often cited when discussing collaboration within public management, highlighting Wood and Gray's

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(1991) influence in developing a comprehensive theory of collaboration (Thomson & Perry, 2006). Expanding from definitions provided by Wood and Gray (1991) and Thomson and Perry (2006), a study in the *Human Resource Management Review* defined collaboration "as an evolving process whereby two or more social entities actively and reciprocally engage in joint activities aimed at achieving at least one shared goal" (Bedwell et al., 2011, p. 130). The authors reviewed multidisciplinary definitions and created the definition from five key findings across disciplines:

1) collaboration is an evolving, engaging, dynamic process; it is not static
2) collaboration requires interaction between entities (individuals, teams, units, departments, functional areas, and organizations)
3) collaboration requires reciprocity whereby both involved parties actively participate in the process with no one party controlling the other
4) collaboration, despite differing goals across disciplines, requires joint activities, input from all parties, and participation in the decision-making process
5) collaboration as a process requires at least one shared goal, and at times, must resolve conflicting goals in order to agree on at least one shared goal (Summarized from Bedwell et al., 2011).

In the education community, Friend and Cook (2000, p. 6) define collaboration as "a style for direct interaction between at least two co-equal parties voluntarily engaged in shared decision-making as they work towards a common goal." Though the authors offer a frequently cited definition of collaboration, they state that in the school setting, the term is used in a variety of contexts often leading to confusion rather than clarification (Cook & Friend, 2010).

Hanft and Shepherd (2008, p. 3), authors of *Collaborating for Student Success*, define collaboration within the school-based occupational therapy profession as "an interactive team process that focuses student, family, education, and related services partners on enhancing the academic achievement and functional performance of *all* students in school."

Ironically, the sole consensus in the literature regarding the definition of collaboration is that there exists no coherent and suitable definition across disciplines; without a widely accepted definition, scholarly research is limited due to challenges with measuring and conceptualizing collaboration (Bedwell et al., 2011; Gray, 1991; Thomson & Perry, 2001; Thomson, et al., 2007). For instance, occupational therapy articles consistently cite the definition of collaboration through the work of Cook and Friend (2010) or Hanft and Shepherd (2008). The work of Cook and Friend (2010) comes from the field of education— more specifically, special education. While the occupational therapy field has adopted a definition from the education field, no studies reviewed from the education field adopted definitions frequently cited in occupational therapy research. Several articles focusing on collaboration failed altogether to cite a definition to underpin the study (Olson, Balmer, & Mejicano, 2011; Berzin et al., 2011). Overall, definitions for collaboration aligned with the journals in which they were published, and there appears to be a certain loyalty in citing definitions from within a circle of research kinsmanship. A summary of definitions is provided in Table 2.1.

Table 2.1 Summary of definitions for collaboration in scholarly journals

Type of Professional Journal	Frequently Cited Definition of Collaboration
Behavioral Science/Public Administration (definition 1)	"a process through which parties who see different aspects of a problem can constructively explore their differences and search for solutions beyond their own limited vision of what is possible" (Wood & Gray, 1991, p. 143)
Behavioral Science/Public Administration (definition 2 influenced by Wood & Gray, 1991)	"Collaboration is a process in which autonomous or semi-autonomous actors interact through formal and informal negotiation, jointly creating rules and structures governing their relationships and

Source: (Summarized from authors as cited in table)		
		ways to act or decide on the issues that brought them together; it is a process involving shared norms and mutually beneficial interactions" (Thomson, et al. 2007, p. 3)
	Education	"A style for direct interaction between at least two co-equal parties voluntarily engaged in shared decision-making as they work towards a common goal" (Friend & Cook, 2000, p. 6).
	School-Based Occupational Therapy	"An interactive team process that focuses student, family, education, and related services partners on enhancing the academic achievement and functional performance of *all* students in school" (Hanft & Shepherd, 2008, p. 3).
	Social Work, Nursing	the ability to reach goals that cannot be reached by working alone within one's singular discipline (Olson, 2003, as cited in Selle, Salamon, Boarman, & Sauer, 2008) (not a direct quote) Definitions noted in the literature from Thomson, Perry, & Miller (2007), Friend & Cook (2000)

As described in the literature, collaboration takes on different meanings and objectives depending on who is collaborating with whom and the terminology used to describe the collaborative relationship. For instance, a study reviewing collaborative models for health and education professionals working in school settings stated that interprofessional practice is the current health industry terminology used to describe two or more professionals working together as a team (Hillier et al., 2010). Multidisciplinary, interdisciplinary, and transdisciplinary terms describe a continuum of models housed under the umbrella term of interprofessional collaboration. The

main difference between terms lies in whether or not the "individual member disciplines accept transference of traditional roles and the degree to which they work together" (Hillier et al., 2010, p. 2). However, as with definitions of collaboration, terms used to describe collaborative relationships lack consistency in use and specificity regarding why one term is preferred over another term. Table 2.2 highlights the primary terms used to describe collaborative relationships.

Table 2.2: Terms used to describe collaborative relationships

Term	Definition in Scholarly Literature
Interorganizational collaboration	"A process that can emerge as organizations interact with one another to create new organizational and social systems" (Thomson et al., 2007, p. 1)
Interprofessional collaboration	"The process in which different professional groups work together to positively impact health care" (Zwarenstein, Goldman, & Reeves, 2009, p. 2)
Transdisciplinary collaboration	"A framework for professionals which allows the sharing and integration of expertise of the team members" (Bell, Corfield, Davies, & Richardson, 2011, p. 143)
Multidisciplinary collaboration	"Individual professionals work in parallel, with little interaction between them (Warner, 2001, as cited in Bell et al., 2011, p. 143)
Interdisciplinary collaboration	"More cooperation and discussion among therapists, but the framework for intervention is still profession-specific" (Bell et al., 2011, p. 143)

Source: (Summarized from authors cited in table)

In an Australian study focusing on the attitudes and perceptions of team members supporting children with disabilities, the term "team-based collaboration" provided an additional way to categorize collaborative relationships (Gallagher, Malone, & Ladner, 2009). Another term used in the literature was "interactive teaming", which is described as "an integration of

consultation and collaboration" (Hillier et al., 2010, p. 7). Interactive teaming is defined as "mutual or reciprocal effort among and between members of a team to provide the best possible educational program for a student" (Hillier, et al., 2010, p. 7). According to this definition, reciprocity is an essential component of the collaborative process, and is a key distinction between the definition of collaboration and cooperation. "Collaboration focuses on identifying a common purpose and working together toward joint decisions" (London, 2010, p. 2). Collaboration without reciprocity or common goals may well be mere cooperation (Bedwell et al., 2011).

As evidenced by the literature, inconsistencies in both the definition of collaboration and the terms to describe collaboration limit the ability for research to expand across disciplines and transfer knowledge from one field to another. A fitting conclusion to this section of the review highlights a robust literature review focusing on work-based collaboration completed by Bedwell et al. (2011). The authors synthesized the literature on current studies and argued that existing definitions ranged from too vague to too specific. In addition, many studies cited explained the context of collaboration without providing a definition, and often collaboration lacked conceptualization as a process. In response, the authors offered a definition of collaboration as "an evolving process whereby two or more social entities actively and reciprocally engage in joint activities aimed at achieving at least one shared goal" (Bell et al., 2011, p. 130). The authors conclude, "This definition represents the most critical underlying assumptions regarding collaboration drawn from the literature review while avoiding the previously described limitations inherent in existing definitions (Bedwell et al., 2011, p. 130.) Concluding with a definition underpinned by a thorough and rigorously researched study allows the discussion to move from the task of defining collaboration to the challenge of conceptualizing and measuring collaboration.

Collaboration is neither static nor sustained; it is an evolving process. The term "sustainability" is applicable for collaboration and clarified by van der Laan (2014, p. 1), "Nowadays the term 'sustainability' is arguably overloaded and 'abused'. Nevertheless, the term does imply some sense of on-going viability. So for community capacity building, sustainability starts with maintaining motivation and sufficient resources." According to Wood and Gray (1991), meaningful collaboration requires a give and take on the part of the

stakeholders in hopes of maintain motivation, discovering resources, and producing solutions that none of the parties working individually would be able to achieve on their own. Inherent in those solutions is a process that breathes, morphs, and changes to meet the needs of the people in the collaborative relationships, moving beyond sustainability to discover options for expanding possibilities.

2.3.2 Conceptualizing and measuring collaboration

Generally when discussing theory or practice, theory precedes the word practice, as in the phrase "theory into practice." The reverse is true for studies focusing on collaboration. Wood and Gray (1991), quoted frequently in studies published in behavioral science or public administration journals, endeavored to move from practice to theory in their seminal work titled *Toward a Comprehensive Theory of Collaboration.* This foundational work found that at the time, theory generation from collaborative studies was oriented toward individual organizations, agencies, or government departments rather than toward interorganizational collaboration (Wood & Gray, 1991). In addition, the researchers state that existing theories explained preconditions of collaboration but did not all address the same issues. Without a cohesive theoretical model, research projects lacked a framework for conceptualizing and measuring collaboration (Thomson et al., 2007).

Wood and Gray (1991) implored the research community to work together in an effort to create a comprehensive theory of collaboration. Thomas et al. (2007) designed a study with the explicit purpose of addressing the difficult quest for the meaning and measurement of collaboration. Building from the work of Wood and Gray (1991), the study lead to the ability to summarize the research from organizational behavior and interorganizational relations into a theoretical model of collaboration known as The Antecedent-Process-Outcome Framework (initially discussed in a prior study by Thomson and Perry, 2006). Antecedents are the primary reasons why collaborative relationships develop between organizations, agencies, multidisciplinary professionals, or team members. The process portion of the framework consists of five dimensions: governance, administration, organizational autonomy, mutuality, and norms. Table 2.3 summarizes the key characteristics of each of these dimensions.

Table 2.3: Summary of key characteristics of five dimensions of collaboration

Governance	Making joint decisions about rules that govern behavior and relationships; creating structures to assist with solving collective action problems; a process requiring negotiation and ongoing conflict resolution to maintain equilibrium through shared responsibility for governance
Administration	Creating an administrative structure that moves from governance to action; establishing an effective system that clarifies roles and responsibilities, communication channels, and mechanisms for monitoring roles and responsibilities
Organizational autonomy	Maintaining distinct identities separate from collaborative identity; intrinsic tension between organizational self-interest and collective interest; development of goodwill; working on the edge of change/chaos
Mutuality	Shared or differing interests that are interdependent and go beyond individual organizational goals/missions; complimentary resources such as skills, expertise, or money providing mutual benefit to both organizations or satisfying differing interests without hurting either organization; relationships strengthened by commitment to similar target populations
Norms	Repeated interaction among partners to build credible commitment, trust, and reciprocity; building reputations for trustworthy behavior over time

Source: (Summarized from Thomson et al., 2007)

The ambitious study by Thomas et al. (2007, p. 25) described the five dimensions "as rooted in a wide cross-disciplinary body of theoretical literature and substantiated by interviews with organization directors." The authors readily discussed the strengths, weaknesses, and limitations of their research; however, they provided a solid empirical basis for the five

dimensions uncovered in the study. Given the limited theoretical cohesiveness noted in collaboration studies, Thomas et al. (2007) made a definitive contribution to the research focusing on collaboration. The work of Wood and Gray (1989) and Thomas et al. (2006 & 2007) dominated the fields of behavioral science and public administration research, but interestingly, did not cross over into the fields of education or health science (as evidenced by the lack of references to these works in scholarly articles from those fields).

Hillier et al. (2010) produced a study from Australia that examined collaborative models for health and education professionals working in school settings. The study produced five guiding principles for interactive teams: participation and leadership, development of goals, communication, decision-making, and conflict resolution.

While Thomas et al. (2007) developed a model for interorganizational collaboration; Hillier et al. (2010) focused on guiding principles for training team members who have student goals as objectives, rather than the interests of two or more organizations working together. Though directly applicable to collaboration between therapists and general education teachers, references to the work of Hillier et al. are rare in United States-based studies in the fields of education and occupational therapy despite the fact that the authors cite American researchers Friend and Cook (2000). Though reciprocity is a guiding principle in defining collaboration, this example (and others discovered during the review process) showed a lack of reciprocity in terms of citing one another's work, thus limiting the potential for positive contributions from other studies outside the boundaries of individual disciplines. This section of the review process focused on answering guiding question number two, "How is collaboration measured and conceptualized in multidisciplinary research?" Based on the review process thus far, measuring and conceptualizing collaboration within the research community is in an emerging state; further studies and contributions are needed to enhance and expand on current theories, and move beyond the discrete nature of discipline boundaries.

The following section provides a review of studies reporting successful collaborative experiences guided by question number three, "How does the literature describe successful

multidisciplinary collaboration, and specifically successful collaboration between occupational therapists and general education classroom teachers?"

2.3.3 Themes and threads of success in multidisciplinary research

For this portion of the review, multidisciplinary research is narrowed to include only the fields of health science, occupational therapy, and education. Multidisciplinary research in the field of health science refers to articles reporting successful collaboration between individuals from different disciplines working together in multidisciplinary teams. The review includes studies published in health-science-themed journals including *International Nursing Review*, *Journal of Continuing Education in the Health Professions*, *Nurse Education Today*, *Journal of Interprofessional Care*, *Education for Health*, and *Child: care, health and development*.

The field of health science includes occupational therapy research. As the literature was reviewed, it became clear to the researcher that research from the field of occupational therapy aligns more closely with research from the health science field than from the education field.

Studies focusing on specific subgroups in the health science field (e.g. speech therapy, physical therapy, and mental health) received no review due to the vastness of articles beyond the scope and focus of this study.

2.3.4 Attributes of collaboration success in the health science field

As in other multidisciplinary research discussed previously, collaboration within the field of health science shows evidence of evolving over time, with research studies using a variety of terms to describe collaborative relationships. In this section of the review, only studies that reported successful collaborative projects or partnerships are examined.

Eight studies in particular, all focusing on what makes a collaborative project or study successful, contributed especial insight. Each study used a different term; among them were transdisciplinary collaboration, interdisciplinary collaboration, international partnerships, interorganizational collaboration, interprofessional collaboration, and a review study citing

all these terms within one published article. Table 1.4 summarizes reported elements leading to success for each study. Included in the table are the names of the journal that published the study, the term used to describe the collaborative model, and a summation of elements contributing to success. Table 2.4 provides a summation of successful attributes cited in health science studies.

Table 2.4: Summation of successful attributes cited in health science studies

Journal Name	Descriptive Model Term	Success Attributes
Journal of Interprofessional Care	Interprofessional education and collaborative practice	Role understanding and appreciation of others' roles; Communication among providers, patients, and their families (Suter et al., 2009)
International Nursing Review	International collaboration	Five "R's": realistic goals; repetition; reinforcement; reassessment; remain open to change (Palmer, 2009)
Journal of Continuing Education in the Health Professions	Interorganizational collaboration	Clinical Focus: choosing an important problem that is specific, has strong evidence of effective interventions, demonstrates a gap between desired and actual practice, motivation for change, a connection between purpose and people; Environmental Factors: organizational structure and processes, shared vision and purpose, communication, measurable

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		and achievable targets, creation of value (Olson, Balmer, & Mejicano, 2011)
Nurse Education Today	No term identified; simply used "collaboration" Note: this study reported unsuccessful collaboration; however, the authors created a model of success from the failed collaborative partnership	Agency dimension: maintaining autonomy; Structural dimension: collaboration as a process and sharing; Social dimension: mutual behaviors including partnership, interdependency, and capacity development (Daniels & Khanyile, 2013)
Child: care, health and development	Transdisciplinary collaboration	Transition from a multidisciplinary model (team members working in parallel with no joint goals) to a transdisciplinary model (team members working together sharing expertise and learning from one another as they focus on joint goals) increased all goal attainment as set at onset of study (Bell et al., 2009)
Journal of Interprofessional Care	Interdisciplinary collaboration	Modeling for university students the important attributes of successful interdisciplinary collaboration including learning about each others'

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		roles, elements of mutual respect, active listening, compromise, client-centered concern, and client-centered goals (Selle, Salamon, Boarman, & Sauer, 2008)
Education for Health	Variety of terms, as this was a review article	Team building exercises across professional training programs to: achieve consensus on each member's roles, clarification of perspectives, clear communication with limited discipline-specific jargon, consensus about confidentiality issues specific to each discipline; Five guiding principles for interactive teaming (Hillier et al., 2010)

Source: (Summarized from authors as cited in table.)

Attributes of successful collaboration reported in the health science literature vary broadly, just as definitions, terms, and model descriptions vary. Attributes of success appear to be contextual, lending additional support to the researcher applying a phenomenological perspective to the review process. A holistic view reveals a landscape of research as varied as the environments and people living and working within them. A narrow, detailed view lacks consistency in reporting data; as such, it is difficult to draw any unilateral consensus on what it means to successfully collaborate, as the evidence suggests that success is a relative term reserved for interpretation by individuals, teams, or agencies. Though the studies reviewed offer insight, a literature review focusing on collaboration between occupational therapists

and teachers determined that most studies were of poor quality or not current thus leading to challenges identifying successful attributes for collaboration between health and educator sectors (Kennedy & Stewart, 2011). Throughout the review process this statement was repeatedly confirmed, in that the studies reviewed by the researcher contain citations, well past what would be considered current. In addition, the studies cited one another's dated references, creating a citation loop in dire need of current empirical influence. It is important to note that often studies contain dated references as the authors attempt to lay a historical foundation for their readers. In the case of the above-mentioned studies, the dated references did not underpin the research through building from historical or classical foundational work; references were quite simply outdated.

The following section reviews studies reporting successful collaborative relationships specifically cited in occupational therapy journals, thus honing the review's focus on occupational therapists and teachers.

2.3.5 Attributes of collaboration success in the occupational therapy field

The IDEA (2004) requires that children and families receiving services in schools and early intervention be served through interdisciplinary team-based approaches (Orentlicher, Handley-More, Ehrenberg, Frenkel, & Markowitz, 2014). Hanft and Shepherd (2008, p. 26) state, "Successful collaboration among team members is measured by student outcomes, not how often people talk to one another or share resources." An essential element woven into definitions of collaboration is the notion that the collaborative relationship focuses on attaining at least one shared goal, objective, or outcome.

The field of occupational therapy is housed within the confines of the health science profession; however, school-based occupational therapy adopts an educational model rather than a medical model when working with students in a school setting rather than in a clinical setting (Hanft & Shepherd, 2008).

The occupational therapy's governing board (AOTA), influence and guide best practices for therapy delivery in the school setting. As the therapy profession, broadens their practice from direct service delivery (frequently cited in the literature as the pull-out model) to

collaborating in classrooms, research to guide practice becomes essential for discovering attributes common to successful collaboration. Bose and Hinojosa (2008, p. 290), routinely cited in occupational therapy journal studies, conclude their literature review with this statement: "The results of these studies provide preliminary support for the conclusion that occupational therapists recognize the value of collaboration in school-based settings. The actual process of effective collaboration, however, remains unexplored." The authors highlight an important research need—research focusing on attributes of successful collaboration.

Two years later, Kennedy and Stewart (2011, p. 210) stated, "Although there is growing empirical evidence and a lot of anecdotal support for collaboration between health professionals, research describing collaboration between occupational therapists and teachers is sparse." Kennedy and Stewart (2011) contributed to the body of knowledge by conducting a literature review out of Australia focusing on collaboration between occupational therapists and teachers. Kennedy and Stewart (2011, p. 213) state that the Australian context is similar to the USA and United Kingdom adding that "although there are specific barriers between health and education services, the broad issues of how to define, implement and measure the effectiveness of collaboration are as applicable in this context as any other." The authors concluded their literature review with the recommendation that "further research into efficacy, appropriate training and a description of models and systems, which support collaboration between occupational therapists and teachers is required to facilitate best practice across health and education settings" (Kennedy & Stewart, 2011, p. 213). The authors' findings aligned with researchers Bose and Hinojosa (2008), despite Kennedy and Stewart's (2011) research focusing on collaboration in Australia. This provides preliminary evidence that limited collaboration between therapists and teachers may reach beyond United States borders.

Due to repeated recommendations for "further study," the researcher sought the most current evidence of the research community responding to the need for more empirical studies. A search for studies conducted from 2011 to the present found four journal articles reporting collaboration success among team members that included occupational therapists and classroom teachers. Other articles discovered included summations of older research

reiterating what had already been reported in prior literature reviews and/or commentaries about the state of collaboration, void of empirical data. Table 2.5 complies successful attributes in occupation studies as reported in the literature.

Table 2.5: Reported successful attributes in occupational therapy studies

Journal	Study name and authors	Successful attributes reported
Canadian Journal of Occupational Therapy	"Support for Everyone": Experiences of Occupational Therapists Delivering a New Model of School-based Service (Campbell, Missiuna, Rivard, & Pollock, 2012)	Partnering for Change (P4C) model developed that focused on building relationships in inclusive classrooms; providing consistent responsive services for teachers; providing services that benefited every child in the school; therapists spent one full day per week in a school; focused on knowledge transfer for teachers; capacity building through collaboration and coaching in context
Intervention in School and Clinic	Fostering Collaboration in Inclusive Settings: The Special Education Students at a Glance Approach (Jones, Jones, & Vermette, 2012)	Reported on the special education students at a glance approach (SESG); created three forms for special educators to use as collaboration tools in order to improve IEP follow-through with general education teachers and improve multiprofessional coordination; having a common form as a first step to improving communication and

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		collaboration
Journal of Occupational Therapy, Schools, & Early Intervention	Promoting Inclusion with Occupational Therapy: A Co-teaching Model (Silverman, 2011)	Reported on OT activities implemented in kindergarten classrooms using a co-teaching model; co-teaching model proved helpful in bringing OTs into inclusive classrooms; model improved carryover of strategies by classroom teachers
Journal of Occupational Therapy, Schools, & Early Intervention	The Sensory Processing Measure – Preschool (SMP-P) – Part Two: Test – Retest and Collective Collaboration Empowerment, Including a Father's Perspective (Henry, 2011)	Reported on the SMP-P's effectiveness in promoting collaborative empowerment among team members including the OT, OTA, preschool teacher, paraprofessionals, grandparents, and parents

Source: (Summarized from authors as cited in text)

The Silverman (2011) study crossed over disciplines by reporting on the co-teaching model, whose roots are in special education—a field not usually referenced in occupational therapy studies. Most articles on co-teaching (discussed in the next section) are found in education journals. The publishing of this study in an occupational therapy journal prompted this researcher to look more deeply into possible reasons why this article transcended the boundaries of education and occupational therapy research. Upon closer analysis, the researcher observed that Silverman (2011) held two degrees, an EdD and an OTR/L. The degree combination created a foundation of understanding garnered from both the education and occupational therapy fields.

Finally, in concluding this discussion on successful collaborative models from the occupational therapy field, overall efficacy must be considered. Kingsley and Maillous (2013, p. 431) completed a literature review that considered the evidence for all aspects of

service delivery and concluded that "no specific setting or method of service delivery was identified as clearly most effective, with most studies reporting combined approaches and environment for interventions." It is recommends that occupational therapy practitioners move beyond specific models for service delivery to viewing collaboration as an interactive team process including team supports, hands-on services, and system supports (Hanft & Shepherd, 2008). Though participating in interactive team processes is recommended as best practice, evidence suggests limited interprofessional collaboration between teachers and therapists (Orentlicher, et al., 2014)

The next section of the review examines collaboration studies published from the education field. The review remains focused on answering the question, "How does the literature describe successful multidisciplinary collaboration, and more specifically, successful collaboration between occupational therapists and general education classroom teachers?"

2.3.6 Attributes of collaboration success in the education field

Though initially, collaboration focused on students with disabilities, current recommendations encourage collaboration in the general education classroom to support teachers and all students, not only the students recognized with a disability (Hanft & Shepherd, 2008).

The literature in the field of education is dominated by research exploring collaboration between special education teachers and inclusive classroom teachers using co-teaching models. "Bringing services and support to the student in the general education classroom, as opposed to removing students from learning experiences with same age peers, is largely viewed as the *hallmark* of inclusion" (Kilanowski-Press, Foote, & Rinaldo, 2010, p. 43). Bose and Hinojosa (2008, p. 289) are in line with this sentiment, and add, "Literature on inclusion consistently identifies collaboration as the key to its success because students benefit from the educational program and are integrated in the social environment of their classrooms." The dominant model for collaboration in general education classrooms is co-teaching, though this model generally applies to collaboration between general education teachers and special education teachers.

Co-teaching is defined by Murawski and Dieker (2008, p. 40) as "a service delivery option designed to address the needs of students in an inclusive classroom by having a general education teacher and a special service provider teach together in the same classroom to meet the needs of individual students." The joint delivery of instruction is aimed at meeting the learning needs of a diverse group of students (Friend, Cook, Hurley-Chamberlain, & Shamberger, 2010).

A metasynthesis of qualitative research on co-teaching in inclusive classrooms found that the dominant co-teaching method was "one teach, one assist", though this method is the least supported by research (Scruggs, Mastropieri, & McDuffie, 2007). In addition, Scruggs et al. (2007) concluded that planning time, student skill level, and training were factors affecting the success of co-teaching.

Co-teaching is rarely used as a collaborative model in the field of occupational therapy; however, co-teaching is cited in numerous studies and deemed best practice for collaboration in the special education community (Fenty, McDuffie-Landrum, & Fisher, 2012; Fenty & McDuffle-Landrum; Friend & Cook, 2000, 2010; Gurgur & Uzuner, 2010; Hepner & Newman, 2010; Kilanowski-Press, Foote, & Rinaldo, 2010; Kloo & Zigmond, 2008; Murawski, 2012; Murawski & Dicker, 2008; Murawski & Hughes, 2009; Pugach & Winn, 2011; Scruggs et al., 2007; Walther-Thomas, Bryant, & Land, 1996).

As discussed earlier, only one study in an occupational therapy journal described the use of the co-teaching model for service delivery (Silverman, 2011). The outcomes showed that when occupational therapists teach beside the classroom teacher, there is an increase in the effectiveness of therapy interventions; this is due to the increased opportunity for therapists to model strategies and accommodations (Silverman, 2011).

It is interesting to note the one-sided nature of research between the two fields— the occupational therapy field research reviewed focused on how to create successful partnerships with classroom teachers, but no education field studies reviewed focused on collaboration between general education teachers and occupational therapists. Additionally, no studies reviewed from the special education sector focused on collaboration between occupational therapists and special education teachers.

Regardless of reported efficacy for particular models of collaboration or the lack of reciprocity between the education and therapy fields, the benefits of building collaborative relationships are positively reported in the literature (Hanft & Shepherd, 2008; Hillier et al., 2010). Since professionals from both the health and education communities often share in supporting children in educational settings, collaboration between fields is preferred over working in isolation (Hillier et al., 2010). Benefits reported by Bose and Hinojosa (2008, p. 289) included "increased opportunities for professionals to develop new skills and share ideas and strategies and improved cohesiveness in services for students with disabilities."

The processes of sharing resources and exchanging ideas create an atmosphere of mutual respect and understanding of roles and responsibilities wherein everyone is equally valued for the expertise they bring to the table (Senior, 2011). Strategies learned from a variety of disciplines expand the population of students who benefit, with or without disabilities (Worthen, 2012). For every child with an IEP, there are numerous others who do not qualify but would benefit from strategies and support (Wilson & Heiniger-White, 2008).

Modeling strategies and accommodations increases the effectiveness of interventions (Silverman, 2011). Working as a team with other professionals aligns with federal education mandates of the IDEIA by helping children be successful in the least restrictive environment (Shasby & Schneck, 2011). The barriers to academic success are reduced while success is increased (Pugach & Winn, 2011).

Collaboration creates an environment where there is parity, trust, respect, and improved school climate (Cook & Friend, 2010). Students with special needs feel better about themselves when they participate to their fullest potential in the classroom (Murata & Tan, 2009).

Hanft and Shepherd (2010) examined evidence for improved student outcomes due to collaborative occupational therapy services and support in education settings. The authors cited eleven studies between the years of 1989 and 2006 that provided evidence of improved student outcomes. The generalizability of the studies was limited due to small sample size, but does show a trend toward positive outcomes. Eight of the eleven studies focused on fine

or gross motor skills, while the remaining three studies referred to improvement in behavior or time on task.

A study in the *Australian Occupational Therapy Journal* cited the work of Hillier et al. (2010) and provided substantial insight into collaborative practices between occupational therapists and teachers (Kennedy & Stewart, 2011). The authors state: "Definitions of collaboration differ, and although professionals agree that it is important to collaborate, the evidence of effectiveness is scant" (Kennedy & Stewart, 2011, p. 209). Again, this study cites the definition of collaboration provided by Friend and Cook (2000). The authors go on to state, "There is some evidence that occupational therapists have difficulty working in educational settings, but clear models for how to proceed are not evident" (Kennedy & Stewart, 2011, p. 210). The difficulty could be due to teachers not inviting therapists into their classrooms due to teachers' lack of training in strategies primarily used in special education classrooms (Huang, Peyton, Hoffman, & Pascua, 2011). With limited invitations into classrooms, therapists have not had the opportunities to develop working models for classroom collaboration.

The pragmatics of service delivery between health and education systems varies due to the nature of systems in different countries and states (Kennedy & Stewart, 2011). In a systematic review of collaborative models for health and education professionals working in school settings, Hillier et al. (2010, p. 4) corroborate the findings in this review with the statement that "the majority of papers were from health-related journals rather than educational journals, and the majority of authors were not generalist educators—often either an allied health professional or special educator." The dearth of general educators initiating research on classroom collaborative practices provides evidence of a gap in the research, and supports the need for rigorous research that focuses on interprofessional collaboration.

Summarizing the review thus far, the confusion when comparing studies and generalizing outcomes lie in four main areas:

1) defining collaboration across disciplines; if members from different disciplines are indeed wanting to collaborate with one another, then citing an agreed-upon definition is the first step toward comparing and generalizing outcomes of studies across disciplines

2) terms used to describe collaborative relationships are varied, and confusion lies in whether the term is a descriptive category to describe collaborative relationships or an actual model of collaboration

3) the widespread existence of discipline-centric research, whereby members of different disciplines attempting to collaborate with one another are unaware of one another's definition of collaboration, as well as specific terms or models used within one another's disciplines

4) co-teaching, the dominating model for collaboration in the education community, does not appear to cross disciplines and populate studies from the field of occupational therapy or multidisciplinary research.

This review evolves from describing successful collaboration to a deeper look at literature focusing on perspectives of occupational therapists and teachers working within collaborative relationships.

2.3.7 Perspectives reported within multidisciplinary research

In order to provide deeper understanding of the relationship between occupational therapists and educators, the literature review discusses research describing factors that enhancing or limiting collaborative relationships. The review remains focused on the multidisciplinary research within the fields of health science, occupational therapy, and education.

2.3.8 Perspectives reported within health science

Reported in the *Journal of Social Work in Disability & Rehabilitation,* a study focusing on the social-psychological support personnel in school settings examined attitudes and perceptions of team-based collaboration (Gallagher et al., 2014). The authors identified prior research findings, including insufficient time, inadequate preparation by parents and educators, lack of appropriate follow-up, lack of formal training in leadership, and lack of collaboration and trust (Gallagher et al., 2014).

The Gallagher et al. (2014) study discussed three quantitative surveys completed by school-based teams (psychologists, counselors, and social workers) and provided the following insights: benefits of the team processes included discipline collaboration, variety of opinions and perspectives, and sharing knowledge and ideas. The respondents reported feeling supported by the team process through improved care and programming, group brainstorming and problem solving, providing feedback, and collaboration (Gallagher et al., 2014). A metaphor summarized respondents' feelings: "Two or more heads are better than one." Emotional support reflected team members' positive feelings about being encouraged, validated, and having their suggestions taken seriously (Gallagher et al., 2009).

Focused on the question of how to make the team process more effective, the researchers created three categories for potential improvements based on responses: time management, communication and cooperation, and team organization. Respondents recommended, unsurprisingly, more time allotted for meetings, more efficient scheduling of meetings, better communication with teachers, and regularly scheduled meetings so that communication and relationships are maintained (Gallagher et al., 2014). The study discussed the lack of inclusion of parents and families in the team process, despite federal mandates for family involvement. The researchers did not expand on the reasons for excluding parents and families.

A systematic review of collaborative models regarding health and education professionals working in school settings found limited collaboration between schools and health agencies (Hillier et al., 2010). Factors influencing collaboration include "limited training for teachers in working in a team and with atypical children, as well as health professionals having strongly-held perspectives of their own discipline which has been fostered by separate and non-collaborative training programs" (Hillier et al., 2010, p. 2). Additional challenges reported included difficulties with scheduling time for collaborative planning, isolated professional training, professionals' unwillingness to expand their roles due to lacking confidence in their abilities, teachers feeling conflicted about additional specialists in their classrooms, and the need to attend more meetings (Hillier et al., 2010).

Reported benefits included parents perceiving multidisciplinary teams as more effective due to collaboration between team members, and team members stating that they learn more from a multidisciplinary team than if they work in isolation (Hillier et al., 2010).

A study by Berzin et al. (2011) examined the perceptions of social workers as they attempted collaboration with classroom teachers using an approach titled "Coordinated School Health." This approach focuses on improving collaboration between mental health professionals, families, communities, the school environment, and education components. The authors noted (as in other studies) the lack of understanding of how school mental health personnel and teachers collaborate in response to children experiencing mental health issues, including behavior and emotional health. A survey was given to 1639 social workers in order to understand who, when, and how social workers collaborate with teachers. The study reported that overall, schools' social workers reported facilitating communication with the home-school community via a consultative model. Social workers reported limited school-wide focused support, and felt they had limited influence over school culture, administrative decision-making, or committee work (Berzin et al., 2011). The authors conclude the study by writing, "One limitation of decision-making it did not seek to capture the teacher's perspective and therefore provides a one-sided view of this collaborative relationship" (Berzin et al., 2011, p. 499). It is not uncommon for studies focusing on collaboration to limit the reporting to the perspectives of one side of the partnerships. The review suggests an opportunity exists for studies to focus on the perspectives of both sides of a collaborative partnership.

The Hillier et al. (2010) study discussed an important additional consideration—namely, the implications for future training at undergraduate and postgraduate levels. Creating opportunities for health and education professionals to work collaboratively across disciplines may contribute to more effective use of collaboration models and enhance perceptions and understanding of team members' roles and contributions to the process (Hillier et al., 2010). The authors recommended professional development, observation of one another's roles, clarifying worldviews and perspectives, and improving communication by limiting discipline-specific jargon.

The review now explores perceptions of relationships between occupational therapists and educators, as reported in studies published solely in occupational therapy journals. The next section will be focusing only on published studies in occupational therapy journals; this is to understand more deeply the overarching perspective of professionals in the field.

2.3.9 Perspectives reported within occupational therapy

Exploring the perspectives of occupational therapists actively involved in collaboration within inclusive classrooms offers insight into their relationships with general education teachers; however, Mu, et al. (2010) state "Despite the increasing popularity of inclusive education and its inevitable impact on school-based occupational therapy practice, the understanding of occupational therapists' attitude towards inclusion and their practice in inclusive environments is limited." Nonetheless, the studies reviewed (though limited in number) provided considerable insights worth noting.

A qualitative study by Campbell, Missuina, Rivard, and Pollock (2012) explored occupational therapists' perspectives using semi-structured interviews; the goal was to gain an in-depth understanding of the experiences of occupational therapists implementing the Partnering for Change (P4C) model. A thematic analysis approach identified five major themes regarding the therapists' experiences implementing the P4C model:

   a) strong sense of personal growth over the course of a year;
   b) becoming a community;
   c) time and relationship building as key ingredients to implementing the service delivery model;
   d) balancing competing demands regarding time and resources; and
   e) providing services that made an impact, as opposed to brief visits commonly reported in prior interactions with staff members.

The perceptions from the Campbell et al. (2012) study highlight how program planning and design influence perceptions. Adequate preparation and planning play a critical role in occupational therapists' positive or negative perceptions of collaboration (Bose & Hinojosa, 2008).

A frequently cited grounded theory study described experiences of school-based occupational therapists working in inclusive early childhood classrooms (preschool through second grade) in New York City, NY (Bose & Hinojosa, 2008). Seven therapists were asked open-ended questions asking them to describe how they experienced success in their practices, as well as their perceived challenges. The results highlighted four themes:

a) difficulties collaborating, but nonetheless valuing collaboration;
b) challenges interacting with others;
c) attachment to the status of expert; and
d) uncertain if their interactions were actually collaborative as defined by research (Bose & Hinojosa, 2008).

The occupational therapists reported barriers to collaboration, including:

a) the time and relationship-building needed to implement the service delivery model;
b) balancing competing demands regarding time and resources;
c) providing services that have an impact, as opposed to brief visits;
d) limited teacher receptiveness; and
e) lack of administrative support and staff training.

The authors asked the participants to define collaboration in their own words. The thirty-three occupational therapists shared many definitions, including "an interactive style that involved keeping others informed, sharing goals, discussing a problem together, and learning from others," "every member is of equal status," "spirit of 'give and take' rather than one person advising the other," "everyone sharing ideas," and "talking as friends" (Bose & Hinojosa, 2008, p. 292). In addition, the authors reported that all participants viewed collaboration as valuable because of the need to keep the team informed and work on the same goals.

The therapists expressed concern about the lack of team meetings and said communication with teachers was "on the fly." An interesting comment by the authors expressed what this review has discovered as well: "The idea of team meeting times, however, may appear more congruent with a 'medical model,' and teachers may not be trained in this model" (Bose &

Hinojosa, 2008, p. 295). Clearly, teachers are trained in the educational model and comments from the researchers show that the differing training models between the therapy and education fields limits collaboration efforts.

A study gathered information about collaboration between occupational therapists and teachers using focus groups (Hargreaves, Nakhooda, Mottay, & Subramoney, 2012). A total of ten teachers and ten occupational therapists from South Africa participated in the study. Five themes emerged as summarized in the Table 2.6.

Table 2.6: Themes reported from teachers and occupational therapists

FIVE EMERGENT THEMES	SUMMARY OF COMMENTS
Methods of collaboration	Formal methods not used consistently; meetings not formally scheduled, except in special situations with particular students; limited time for communication, leading to establishment of informal methods including messaging, short videos of students, cell phone, informal notes, and discussing learners during breaks; although informal, both groups perceived them as helpful
Benefits of collaboration	In the words of one OT, "I think that collaboration is vital and I think you can't have any downside to that"; both professionals stated that the teacher's knowledge of OT services would increase and they would become better equipped to identify learners that could benefit from OT services
Attitudes	**OTs' attitudes toward teachers:** OTs perceived the majority of teachers as accommodating, understanding, and flexible when sending learners for OT; some teachers felt learners miss out on lessons and they would have to make

	time to make up for the missed lesson
	Teachers' attitudes toward OTs:
	Difficulty communicating with OTs not employed by school (private OTs); non-employed therapist not viewed as part of school staff; not really a colleague; limited communication with private OT; more comfort approaching an OT employed by the school as opposed to the "elusive lady that's coming here…in her own time…"
Obstacles in the collaborative Relationship	Time limitation: both sets of professionals identified time as a barrier to communication first and foremost; difficulty arranging times to meet Knowledge: from teachers' perspectives, communication was difficult because of not knowing OT terminology; difficulty communicating observations of the learners; "…it's almost as if you [are] using different languages because you've got different terminology for things…"; lack of training in identifying learners with difficulties who might benefit from OT services; more collaboration was needed to increase their knowledge. From the OTs' perspectives: a gap in teacher ability to identify students with barriers to learning, though teachers were becoming more aware of possible OT benefits for students
Methods of overcoming barriers to collaboration	Both professionals agreed that more time is needed for meetings and communication; need for fixed timetables for meetings; OTs permanently employed by the school; increase frequency of in-services (OTs' recommendation); teachers stated

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	that in-services from OTs help them identify struggling learners; a checklist designed by the OT showing behaviors would help

Source: (Summarized from Hargreaves et al., 2012)

The Hargreaves et al. (2012) study, though conducted in South Africa, rings remarkably true in relation to US studies regarding teacher and therapist perceptions. For example, a study by Huang et al. (2013) explored teacher perspectives on collaboration with occupational therapists in inclusive classrooms using a sequential exploratory mixed-method design. The focus group sample was small, consisting of five elementary school teachers from one school, each with at least one year of experience working with school-based occupational therapists. Four women and one man were part of the group, each teaching a different grade level. Three themes emerged as highlighted in Table 2.7.

Table 2.7: Teachers' perceptions working with occupational therapists

EMERGING THEMES	SUMMATIVE COMMENTS FROM TEACHERS
Teacher knowledge of occupational therapy	Overwhelmingly, the teachers were uncertain of what OTs did and had a difficult time defining OT as a profession; one participant said, "they would pull him out and work with his coordination and small motor skills, I think, some of his large motor. As far as I know, I didn't really see too much what they did with him"
Communication flow	Lack of relationship with OT; pulled students out of class with no introduction; verbiage was too confusing; terms needed explaining, instead of the assumption that teachers know the language of the OT; spontaneous chat held negative feelings; one teacher reported the OT setting up an initial meeting and that was appreciated; teachers would

	have liked an orientation meeting at start of year and planned meetings for communicating with OTs
Implementing intervention	Successful intervention happened when the OT provided an introduction, explained the needs of the student, purpose for the intervention, and used interventions that motivated students to use interventions in the classroom; hindrances included unfamiliarity with the apparatus, difficult with carryover in the classroom, and perceived effectiveness of the intervention

Source: (Summarize from Huang et al., 2013, pp. 76-79)

The authors recommended further research to "study the collaboration between occupational therapists and general education teachers to develop a collaborative model that can improve the professional relationship while supporting student performance" (Huang et al., 2013, p. 88). The recommendations from the authors reveal the need to transform research into practical solutions for challenges hindering collaboration.

Mandates related to early intervening services found in the Individual with Disabilities Improvement Act (IDEA, 2004) have challenged school personnel to meet the needs of children with special needs within the context of general education classrooms (Collier, 2010, as cited in Cahill & Lopez-Reyna, 2013). Cahill and Lopez-Reyna (2013) used semi-structured interviews to explore experiences of occupational therapists working with problem-solving teams within RTI frameworks. Ten occupational therapists working in eight counties in northern Illinois participated in semi-structured interviews. Four themes emerged (Cahill & Lopez-Reyna, 2013). Table 2.8 summarizes the themes related to occupational therapists' experiences working within RTI teams.

Table 2.8: Occupational Therapists' experiences working within RTI teams

Emerging Theme	Occupational Therapists' Perceptions

"They don't really know what I do"	School personnel had limited knowledge of the scope of OT; narrow view of student concerns that OT could address; seen as only handwriting teachers; viewed as "an extra set of hands"; teachers view them as medical professionals and as long as they were "fixing" kids, they were doing their jobs; would like teachers to see them as providing tools to learn how to deal with disabilities in the classroom
"Can you take a quick look at this kid?"	Teachers stop OTs in hall asking them to take a quick look at an "RTI kid"; infrequent invitations to problem-solving team meetings; students referred to OT from problem-solving team meetings without the OT being invited to be there; limited time to attend meetings even if invited; no time in schedule for meetings; for one OT, the school made sure to give her all paperwork from meetings even if she wasn't there and it was appreciated because of her limited time assigned to each school
"What does it really look like?	OTs all said they collected data from multiple sources including direct observation of students, comparison of students to peers, interviews with teachers, and inspection of work samples; all emphasized the need to "see the kid"

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"Where is participation inhibited?"	Performance routines, managing supplies, following instructions, and producing written work were what therapists looked for in terms of how a student performs in the classroom

Source: (Summarized from Cahill and Lopez-Reyna, 2013)

The authors recommended, "Future research may include a larger sample size that is inclusive of more geographic diversity that may yield different results as the practice habits and patterns of therapists vary based on the location of their school, their school's resources, and the knowledge and experience with problem-solving teams in RTI initiatives" (Cahill & Lopez-Reyna, 2013, p. 323). Expanding research per the authors' recommendations show promise for providing greater insights relating to collaboration efforts designed to serve students in the least restrictive environment.

Benson (2013) used a mixed qualitative design based on multiple-case study analysis and grounded theory to explore school-based occupational therapy practice, with a focus on perceptions and realities of current practice and the role of occupation. Similar themes to those reported in the earlier studies emerged; as a result, the review process looked for new evidence not already reported in the literature and found that the special education teacher was identified as the most important team member in terms of including an occupational therapy perspective in problem solving issues with students. They added that push-in services occurred in the special education classroom rather than the general education classroom, with positive impact in the relationships between therapists and special education teachers (Benson, 2013).

As reported in earlier studies, the general education teachers generally had limited knowledge about the role of occupational therapy. The therapists saw the classroom as "the teacher's domain," leaving themselves as the visitors. Additional comments discussed the "fine line between providing productive occupation-based services in the classroom and assuming the role of an aide" (Benson, 2013, p. 172). Therapists reported frustrations trying

to collaborate with general education teachers, with teachers setting up barriers when therapists attempted to provide service in the classroom.

The therapists clearly articulated that the educational needs of the students in the classroom were their focus for school-based intervention. This study reveals an evolution of perceptions of therapists in the school setting vis-à-vis earlier studies. As studies reviewed became more current, legislative goals and therapy goals found closer alignment with one another in terms of therapists providing services in the classrooms and being included in team-based meetings.

A study focusing on interprofessional role perception and communication between preservice students and therapists in schools reported that role confusion and lack of clarity as to where the lines are drawn between professionals (speech, physical therapy, and occupational therapy) is a common challenge for preservice professionals (Myers, Howell, & Wittman, 2014). The authors recommend further research to develop a conceptual framework describing interprofessional collaboration.

Two overall themes emerged during this portion of the review. Current therapy research consistently uses the term "interprofessional collaboration" to describe the experience of professionals coming together from different fields to focus on student goals in a school setting. In addition, most studies reviewed used the term "team-based meetings," with therapists often expressing that there was not enough time for these meetings. The therapists shared frustrations stemming from the lack of consistent invitations to join team-based meetings, even though their professional knowledge created the potential for important contributions. Table 2.9 summarizes the findings for this portion of the literature review as reported through the lens of the occupational therapy field.

Table 2.9: Comparative glance of teachers' and therapists' challenges with collaboration

TEACHERS' CHALLENGES	THERAPISTS' CHALLENGES
Not sure what therapists do due to	Difficult but of value; inadequately

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infrequent interactions with therapist, especially if they weren't part of the staff (contracted employee)	prepared for classroom support; trained in direct service model (one-on-one)
Need more planning time	Need more time to build relationships
Conversations at inappropriate times while trying to teach	Balancing competing time and resources
Lack of explanations regarding efficacy of proposed interventions	Wanting to make a bigger impact, as opposed to brief visits
Too many people in the classroom working with students at the same time	Difficulty interacting with teachers; felt teacher didn't want them in room
Not understanding terminology	Attached to the "expert" status
Not understanding reports or how to implement interventions; no direct contact with writer of reports	Unsure what collaboration actually means, and if their experiences were indeed collaborative by definition

Source: (Summarized from the research studies cited prior.)

Though both occupational therapists and general education teachers value collaboration, the uncertainty as to how to collaborate effectively remains illusive (Cassidy, 2013; Daniels & Khanyile, 2013; Vincent et al., 2008). Orentlicher et al. (2014) states that interprofessional collaboration is an important component of school-based therapy practices and that therapist need to enhance collaboration by providing service in classrooms, understanding the classroom teacher's perspective, and being part of team support.

The recommendations for therapists to improve their collaborative efforts are strong and clear from AOTA, their governing organization. Interestingly, there are no such directives from the education field for teachers to improve their collaborative efforts with occupational therapists.

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2.3.10 Perspectives reported within education

The focus is now turned to the field of education; the aim is to determine how education research frames their collaborative relationships, and if the terms "interprofessional collaboration" and "team-based meetings" appear throughout the research as they do in research from the occupational therapy field. As discussed prior, in the health science field the notion of "teaming" is more closely aligned with the medical profession than the education profession. The review now explores the relationships between occupational therapists and teachers through the education perspective.

Regrettably, this portion of the review is brief. The researcher attempted many different search options through the USQ library system and perused journal references at the end of studies in an effort to find articles written on collaboration from the education field that included references to occupational therapy. The search found no articles to report. Collaboration studies from the field of education (including special education) netted disconcerting results.

A study titled *Collaborative Relationships for General Education Teachers Working with Students with Disabilities* described team members' roles. The purpose of the study, according to the authors, was "to focus on a few important specialists and support staff who can assist general education teachers as they work with students with disabilities in their classrooms" (Leader-Janssen, Swain, Delkamiller, & Rizman, 2012, p. 113). The professional members included special educators, speech-language pathologists, school psychologists, school counselors, paraeducators, and school administrators (Leader-Janssen et al., 2012). The omission of occupational and physical therapists from the team member status provided evidence of the one-sided nature of research focusing on collaborative teams where therapists are included in membership.

As discussed earlier, co-teaching as the collaborative vehicle for education dominates the field. Co-teaching studies reviewed made no reference to the terms "interprofessional collaboration" and "team-based meetings" (Cook & Friend, 2010; Fenty & McDuffie-Landrum, 2011; Fenty, McDuffie-Landrum, & Fisher; 2012; Hepner & Newman, 2010; McDuffie, Mastropieri, & Scruggs, 2009; Murawski, 2012; Pugach & Winn, 2011). As with

teachers stating that therapists speak a different language, it appears the entire occupational therapy field and education field speak different languages as well.

In the next section, a discussion focusing on RTI unfolds in an effort to answer the final question in this phenomenological literature review, "Which studies focusing on collaboration referenced RTI, and what was the context?" As a promising collaborative tool, RTI literature frequently discusses the need for teachers and support staff to collaborate in an effort to build strong relationships that support all children in classroom settings while focusing on student outcomes (Mack, Smith, & Staight, 2010). What does the evidence suggest in terms of RTI's influence on improving collaboration? Who is included or excluded from collaborative relationships within RTI frameworks? The review continues with this last investigation into the role of RTI within collaborative experiences.

2.4 RESPONSE TO INTERVENTION: CONTEXT IN COLLABORATIVE

RTI is an early intervening approach to academic and behavioral needs of all students within the general education classroom (Murawski & Hughes, 2009). RTI, when correctly implemented, reforms instructional and behavioral strategies for students at risk of being identified with a Specific Learning Disability (SLD), as well as providing intervention for students already identified with an SLD (Murawski & Hughes, 2009). Berzin et al. (2011) offered recent context, "While the ideas associated with these reforms have been discussed in the education literature for decades, it was not until recently when the language was endorsed by key legislation such as the No Child Left Behind Act and the Individuals with Disabilities Improvement Act that these practices started to infiltrate schools on a wide scale" (p. 500). Often, but not always, the RTI framework uses a three-tier model (Shevellar, 2011).

Tier 1

The first tier of a three-tier model includes high-quality instruction by the general education teacher; this is characterized by frequent, data-influenced progress monitoring to make educational decisions about the duration, frequency, and amount of time allotted for

interventions. At this tier curricula need to be scientifically validated, as stipulated by No Child Left Behind Act (NCLB) of 2001 (Reutebuch, 2008).

Though the goal of first-tier instruction is to provide quality instruction for all students in the classroom, the perception is that at this stage of intervention students are not yet identified for special education services (Reutebuch, 2008; Shevellar, 2011). The reality is that many students in the Tier 1 model may have already been identified previously and are now placed in the classroom using an inclusion model (Kilanowski-Press et al., 2010). According to the National Center for Statistical Information, fifty-four percent of students receiving special education services spend eighty percent of their school day in the general education classroom (Leader-Janssen et al., 2012). The majority of students with emotional and behavioral disorders spend at least forty percent of their day in the general education classroom (Carter, Prater, Jackson, & Marchant, 2009). In an article published in the *Journal of Instructional Psychology,* Leader-Janssen et al. (2012, p. 112) state, "Currently, students with disabilities are being served as much as possible in the general education setting, therefore it is essential that general educators work collaboratively and seek out other team members' perspectives and expertise." It is recommended that within the RTI framework, collaborative efforts begin at the Tier 1 level.

Tier 2

The second tier of the RTI model is centered around intervention; this is characterized by interactions such as small group instruction and one-on-one tutoring (Reutebuch, 2008). At this level, students are not yet tested for special education services. However, students already in special education programs may be included in Tier 2 interventions. Training and collaboration with other school personnel is essential at the first two levels to meet the needs of students. Support personnel include classroom teachers, special educators, reading specialists, occupational therapists, physical therapists, counselors, tutors, and paraprofessionals (Reutebuch, 2008; Shevellar, 2011). Note that while occupational therapists are considered to be part of support staff, as discussed earlier, they are often left out of scholarly research from the field of education that focuses on building collaborative relationships and team support structures.

Tier 3

Tier 3 interventions are typically designed for students not making progress with Tier 1 or Tier 2 intervention, and may include students already receiving special education services (Reutebuch, 2008). If children do not meet stated goals for Tier 1 and Tier 2, they are identified in Tier 3 and qualify for special education without being tested to find a discrepancy between the child's IQ and achievement scores (Jimerson, Burns, & VanDerHeyden, 2007).

According to the literature, using an RTI model increases the validity and reliability of student assessments because teachers are not basing decisions on single assessments, first impressions, personal theories, prior information from the school grapevine, or cultural bias (Airasian & Russell, 2008). Using an RTI model as an integral part of the assessment process ensures a consistent, predictable course of action to improve learning for students performing poorly on formative and summative assessments. Teachers in general education settings are being asked to collect data and monitor intervention success for students that require specific techniques and tools. However, the classroom teacher may not be comfortable using techniques and tools due to limited knowledge and time (Carter et al., 2009). In place of the discrepancy model that was used prior to the RTI, students can be identified as having a specific learning disability (SLD) based on how they respond to evidence-based interventions in place at each tier of the RTI framework (Jimerson et al., 2007; Shevellar, 2011).

A quantitative study undertaken by the International Reading Association (IRA) found both promising and troubling findings regarding RTI implementation in the primary grades. With regards to RTI's impact on collaboration, seventy percent of respondents said that RTI not only increased collaboration, but also had a positive impact on instruction. Respondents expressed concern that those providing intervention were not highly qualified and, if they were qualified, they spent too much time with data analysis rather than hands-on time with the students (Scanion, 2014). An interesting side note to this article was that support staff included classroom teachers, literacy professionals, special education teachers, teacher

aides/paraprofessionals, ELL teachers, and speech and language professionals. Again, occupational therapists were not part of the discussion.

The IRA publishes an annual *What's Hot, What's Not Survey*; The 2013 survey showed RTI was in the "very hot" category in 2012 and has moved into the "not hot" category for 2013 (Cassidy, 2013). How this impacts collaborative efforts is unknown at this time. The research is unclear as to how RTI supports or limits collaboration.

2.4.1 The role of occupational therapy in RTI tier I intervention

The AOTA describes the roles of occupational therapy practitioners (referring to occupational therapists and occupational therapy assistants) as "promoting meaningful participation, optimum development, and engagement within natural contexts or least restrictive environments" (London, 2012). The AOTA suggests that occupational therapists offer valuable strategies and interventions throughout the RTI model. For Tier 1, the AOTA provides examples for teacher support, such as "conduct workshops for educators on sensory processing, conduct handwriting screenings for all kindergarten students, make recommendations associated with classroom management, or provide new teachers with support when developing their classrooms' routines" (AOTA, 2012).

Occupational Therapists are encouraged to participate in informal groups or teams knows as communities of practice or formal collaborative groups referred to as professional learning communities (PLCs). Members discuss in-person or virtually, new ideas and current research in order to support professional development with school staff (Clark & Chandler, 2013). Despite literature stating therapists' involvement in RTI and learning communities, there is a lack of studies demonstrating how therapists' roles and responsibilities effectively integrate into general education classrooms based on RTI directives. Studies discuss globally the perceived benefits of such involvement but research from within classrooms remains elusive.

Current RTI frameworks have expanded from core literacy and math support to include behavioral interventions focusing on the social, emotional, and behavioral domains (Saeki et al., 2011). Behavioral interventions focus on externalizing problems that impact academic performance. Studies show that these problems include aggression, non-compliance,

hyperactivity, focus issues, and lack of self-regulation (AOTA, 2012; Cahill, 2012; Gardiner & Robinson, 2011; Handley-More, Wall, Orentlicher, & Hollenbeck, 2013; Mack et al., 2010; Sayeski & Brown, 2011; Wood & Gray, 1991). Due to the co-morbidity of behavior issues and academic issues, interventions aimed at remediating behavior issues may positively impact academic issues. (Gardiner & Robinson, 2011). Occupational therapists have specialized expertise in identifying and intervening with students experiencing behavior issues that impact academic achievement. Occupational therapists are integrated into school initiatives such as RTI, positive behavioral interventions and supports (PBIS), functional behavioral analysis, universal design for learning, and school wellness programs (Clark & Chandler, 2013).

Studies highlighting academic benefits of occupational therapy-influenced interventions validate the efficacy of collaborating within RTI Tier 1 models (Cahill, 2012; Cahill & Lopez-Reyna, 2013; Dowling et al., 2004; Eccleston & Khaimah, 2010; Hillier et al., 2010; Riedy, 2008; Watts-Taffe, 2012). The review went outside the fields of mainstream occupational therapy and education journals to find studies referencing the connections between academics and interventions falling within the realm of occupational therapy services. For instance, journals and doctoral dissertations from the fields of psychology, neuroscience, and medicine reported findings of interest to the therapy and education communities, but were not referenced in any therapy or education studies reviewed.

An illustrative example: According to Dowling et al. (2004), handwriting is seen as one of the major areas of support for school-based occupational therapists. A quantitative study with 48 participants examined the relationship between handwriting, reading, fine motor, and visual-motor skills in kindergarten students; it found significant correlations between the Alphabet Writing Test, Name Writing Test, and the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) (Dowling et al., 2004).

In a clinical field trial study involving thirty-two seven-year-old learners participating in an integrated visual perceptual program, the researchers investigated the effect of ocular motor exercises in combination with a visual perceptual program (Eccleston & Khaimah, 2010). Results of the study showed significant improvement in math, reading, writing, and work

speed. The authors also noted changes in attitude of daring, perseverance, confidence, and motivational behavior (Eccleston & Khaimah, 2010).

Additionally, an empirical study with pre-tests, post-tests, and a control group studied the effects of mixed sensory-motor-perception training on the dyslexic students' fill-in-the-blank test performances. The results showed that the performances rose significantly for the dyslexic students as opposed to the control group (Hillier et al., 2010).

A study discussed the attentional requirements of children while performing motor tasks (standing, walking, or reaching for an object) in conjunction with a cognitive task (Reilly, Woollacott, Van Donkelaar, & Saavedra, 2008). The authors state that when two tasks requiring attention are competing with one another, executive function of attention is compromised. The authors recommend classroom interventions that support postural demands while writing, such as having appropriately sized desks and chairs. These studies show the relationship between skills usually falling under the domain of occupational or physical therapy and their relationship to accessing academic curricula.

Though occupational therapists are supposed to be an integral part of the RTI collaborative process, the review process found a void of studies focusing on RTI Tier 1 interventions that involve collaboration with occupational therapists (or physical therapists, for that matter) despite the wealth of research to support the notion that their skill sets may offer needed relief for general education teachers at the Tier 1 level. According to the AOTA (2012), the contributions that occupational therapists make to students' academic growth due to specialized support for staff members is not commonly identified or documented.

Bean and Lillenstein (2012), reported in *The Reading Teacher*, issues regarding RTI and the changing roles of schoolwide personnel. Though the discussion focused on a variety of professionals working together in schools, occupational therapists were once again excluded from the group (Bean & Lillenstein, 2012). This may be due to the fact that books and journals published by the AOTA highlighting the benefits of collaboration are quite simply, not read by researchers and authors from other fields. This is evidenced by occupational therapists' lack of inclusion in literature discussing collaborative teams working within RTI frameworks. For instance, therapists are encouraged by AOTA to be part of collaboration

through a three strand interactive team process included team supports, hands-on services, and system supports (Clark & Chandler, 2013). The inclusion of therapists in the RTI process is part of team supports. In addition, therapists are encouraged to be part of system supports including taking on leadership roles in terms of professional development, curriculum committees, and school policies (Clark & Chandler, 2013).

Focusing on collaborative leadership is beyond the scope of this review; however, it is important to note that leaders who value collaboration provide essential support for teachers and occupational therapists whose collaborative efforts play an integral role in improving student performance within RTI frameworks (B. Kemmis & Dunn, 1996).

A school's ultimate purpose is to teach students and accept responsibility for the academic performance of the students even in times of change. The attitudes and behaviors of teachers and their leaders impact student learning, according to over two decades of research on effective schools (Bell, Corfield, Davies, & Richardson, 2009). Though legislative mandates ebb and flow along with programs and interventions, one constant in the sea of variables is leadership. As therapists and teachers become involved in communities of practice and PLCs, the concept of parallel leadership holds promise for enhancing implementation of RTI frameworks within schools. Parallel leadership embraces principal-teacher leader relationships based on mutual trust, shared purpose, and allowance for individual expression, all hallmarks of successful collaboration (Crowther, 2009).

2.5 RESEARCH PROBLEM AND POSSIBLE CONTRIBUTIONS

Throughout the review, reported recommendations for further research opened many possibilities for research and contributions to the body of knowledge in the fields of occupational therapy and education. If filling the gap in empirical studies noted throughout the literature review is the goal, then choosing a study that focuses on understanding collaborative relationships between occupational therapists and general education teachers working within an RTI framework in classrooms holds immense promise toward achieving this goal.

The literature review provides evidence of a gap between theory and practice. In theory, collaboration between occupational therapists and general education teachers shows promise for supporting RTI initiatives. This study focuses on moving from theory into practical application in the classroom.

Through interviewing eighteen collaborative pairs consisting of one general education teacher and one occupational therapist, rich description of the phenomenon investigated may provide a place where theory and practice intersect. In addition, as a work-based project, the research is gathered to solve a professional development issue focusing on how best to provide collaboration training for teachers and support staff. The culmination of analyzed data gathered will result in a revised training framework based on the lived experiences, perspectives, and wisdom of the interviewed pairs. As the revised training framework is used during staff development training, a survey will be administered to attendees to determine the perceived effectiveness of the training framework in enhancing collaboration between teachers and support staff.

Contributions to the fields of occupational therapy, special education, and general education may include bringing together the research from the fields in order to cross-pollinating the literature and increase awareness of how the epistemologies from each field can transform classrooms by moving from research into practical application. In addition, providing a training framework designed to enhance collaboration between support staff from different fields and general education teachers holds promise for enhancing team effectiveness.

2.6 CONCLUSION

As discussed prior, the literature supports the benefits of collaboration within the general education classroom setting; however, a host of challenges facing teachers and therapists can limit the amount of collaboration that actually takes place. Despite the challenges reported in the literature, the benefits of collaboration are worth the effort (Hanft & Shepherd, 2008). Scholarly research that informs practice is essential for improving the collaborative climate in school settings; this is accomplished by investigating and uncovering rich descriptions about collaboration practices that help teachers and therapists overcome barriers and thrive by building successful collaborative relationships.

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As this chapter concludes, the original five questions that guided the literature review provided a road map for rich exploration of the current state of collaborative practices in multidisciplinary research. Of even greater relevance to this research, however, is how the five initial questions helped to find and elucidate overarching themes reported in occupational therapy and education research. These themes included disparate definitions of collaboration, a wide-range of inconsistent terminology, a general lack of research crossing over between disciplines, and theory supporting collaboration but providing little practical application for RTI guidelines in general education classrooms. Research focusing on collaboration between therapists and teachers reported a consensus regarding the benefits of collaboration though studies summarized many barriers affecting the teachers' and therapists' abilities to collaborate effectively. All research reported originated from the occupational therapy field, leading to a one-sided discussion. As the review uncovered, research from the general education field was void of studies focusing on collaboration with therapists.

Legal mandates focusing on teaching children in the least restrictive environment underpin the need for collaboration. The literature review shows that collaboration is necessary to support teachers who work with children with special needs in the least restrictive environment—the classroom. Though evidence supports collaboration, the practical "what does this look like in the classroom setting" is unreported. Gathering information from pairs across the United States provides a starting place to understand how collaborative pairs are successfully working together in the classroom environment. Ultimately, data provides the initial information for this work-based project. It is essential to move from simply reporting data to creating a framework whereby the data becomes practically applied and makes a positive contribution in the lives of teachers and therapists as they strive to create collaborative environments that enrich the lives of all children in the classroom setting.

Chapter 3 discusses how the study moves forward from the literature review to developing questions that guide the study, including rationalizing the research design.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

The previous chapter provided a conceptual framework for the basis of the study. This chapter presents the logic and theoretical underpinnings for the research design and methodology adopted for the study. The structure of the chapter is outlined in Figure 3.1. The purpose of this chapter is to provide an overview of methodological approaches, reasoning for the research design, ethical considerations, and sampling strategy to systematically collect data to address the research questions.

An opening quote from *The Craft of Research* (2008) describes the essence of the expression "strategic uncertainties," in research design. A phrase coined by the editors of *Strategic Uncertainties: Ethics, Politics and Risk in Contemporary Educational Research* (Coombes & Danaher, 2001).

> "Doing research carefully and reporting it clearly is hard work, consisting of many tasks, often competing for your attention at the same time. And no matter how carefully you plan, research follows a crooked path, taking unexpected turns, sometimes up blind alleys, even looping back on itself" (Booth, Colomb, & Williams, 2008, p. 4).

Only when research is grounded in high ethical standards and rigorous methodology can its power to answer complex questions be fully realized. As Creswell (2009, p. 5) clearly states, "Preliminary steps in designing a research proposal, then, are to assess the knowledge claims

brought to the study, to consider the strategy of enquiry that will be used, and to identify specific methods". Figure 3.1 illustrates the structure of the chapter.

Figure 3.1: Chapter three structure
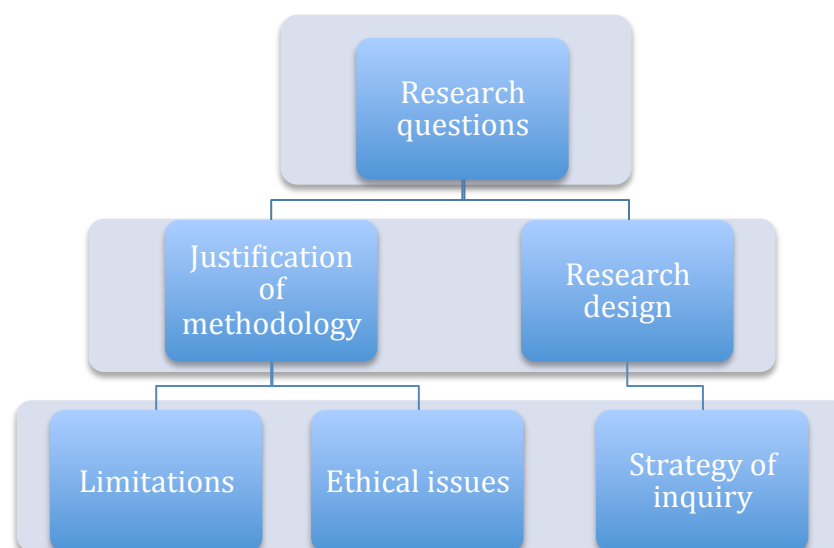
Source: Developed for this research.

3.2 THE RESEARCH QUESTIONS

A review of the literature in chapter two provided multidisciplinary definitions of collaboration along with relevant definitions frequently cited in the therapy and education fields. In addition, teacher and therapist perspectives were discussed and compared, highlighting the challenges reported when attempting collaboration in the educational setting. A gap was evident in the literature review – collaboration was well-researched in the realm of special education, but there existed a void of empirical research focusing on collaboration between occupational therapists and teachers working together in general education classrooms.

The AOTA is recommending that therapists expand their practice of direct service to a broader consultative and collaborative approach. This change in policy directive, along with the increased adoption of RTI frameworks by school boards, creates the need for empirical studies designed to understand the phenomenon of collaboration as is currently practiced and experienced from the perspective of therapists and teachers working together. It also raises

the imperative of reviewing and evaluating current training practices seeking to achieve the broader consultative and collaborative approach as recommended by AOTA.

A review of relevant literature and the development of a conceptual framework are the basis for the following research questions aimed at addressing the gap in the literature and understanding the phenomenon of collaborative relationships through the lived experiences of therapist and teacher pairs (Kvale & Brinkmann, 2009).

Research Question 1: *How and to what extent do general education teacher and occupational therapist pairs in the USA collaborate successfully and to what extent do the systems, assumptions, and worldviews enable or disrupt such collaboration in primary school classrooms?*

> **Sub-Question 1:** *How do teacher and therapist pairs describe their collaborative relationships while working together in an inclusive kindergarten through fifth-grade general education classroom?*
>
> **Sub-Question 2:** *What in the system is enabling or limiting more successful collaboration?*
>
> **Sub-Question 3:** *How have the pairs' perceptions or assumptions changed due to their collaborative relationships?*
>
> **Sub-Question: 4:** *How do the pairs describe their collaborative relationships using myth or metaphor?*

In order to ascertain whether the answers to research Question 1 may inform the review and enhanced delivery of training as encouraged by AOTA, the following supplementary research question is posed:

Research Question 2: *How and to what extent does the S'cool Moves collaboration training framework integrate relevant theory and meet the needs of stakeholders in the teacher-occupational therapist collaborative relationship?*

3.3 SELECTION OF RESEARCH DESIGN AND STRATEGY OF INQUIRY

Choice of research design and strategy of inquiry need to be justified based on the most appropriate methodology for meeting the purpose of the study and answering the research questions. The research design includes the adoption of the research paradigm, research approach, data gathering techniques, sampling process, data analysis strategies, and addressing ethical issues.

3.3.1 Research Design

Chapter 2 detailed the conceptual framework and empirical knowledge that led to posing the research questions. This section addresses the issues related to establishing how to conduct the most appropriate research and to justify its design. This includes justification of the research paradigm and the most appropriate method for gathering data to answer the research questions. The research design refers to the plan or proposal to conduct research that involves the relationship between philosophy, strategies of inquiry, and specific methods (Creswell, 2009; Merriam, 2009).

According to Merriam (2009), a theoretical framework is derived from the orientation that the researcher brings to the study. The framework will "draw upon concepts, terms, definitions, models, and theories of a particular literature base and disciplinary orientation" (Merriam, 2009, p. 67). Research approaches have expanded in the last twenty years to the point where investigators now have a multitude of choices they must consider at the onset of designing a research project as related to the extant literature underpinning the study (Creswell, 2009; Mackenzie & Knipe, 2006). Clarity and explicit explanation of the rationale behind the research design is critical to justifying and reporting findings (Merriam, 2009). Figure 3.2 provides an overview of this study's research design.

It is important to note that the research design is structured into two phases. The first phase answers Research Question 1, which addresses the gap in the literature and identifies emerging extant knowledge from the research. This is then used to inform the review and revision of the S'cool Moves collaboration training framework. The research design then

proceeds to Phase 2, which evaluates whether the revised training program adequately integrates relevant theory and meets the needs of stakeholders.

Figure 3.2: Overview of research design
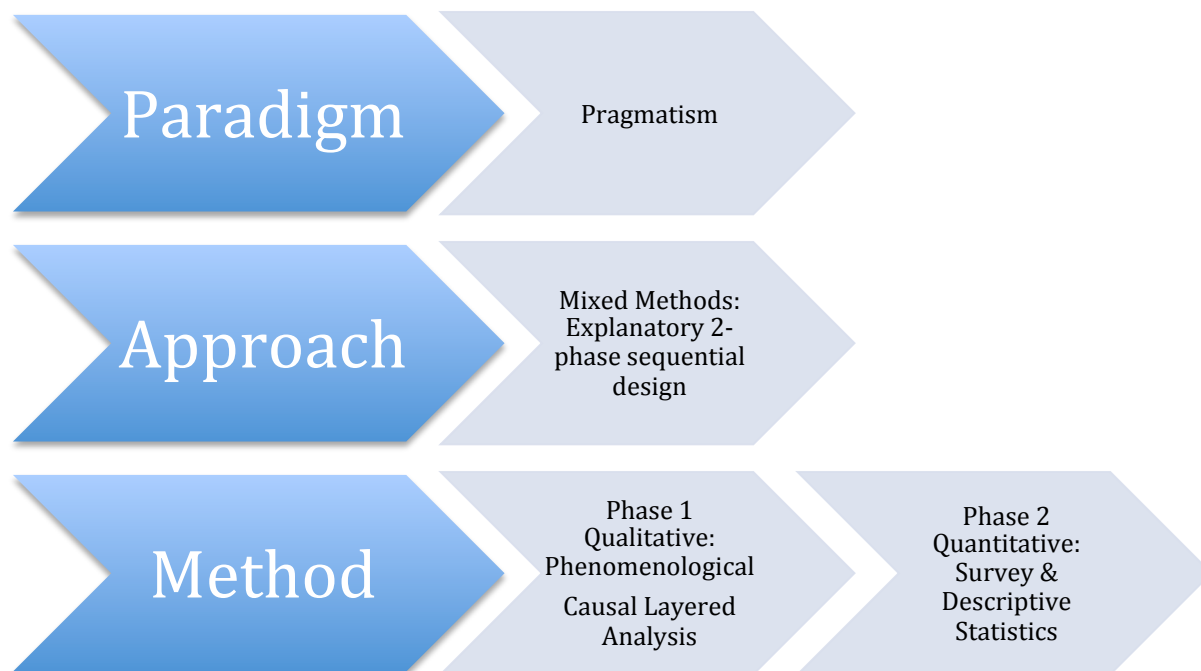
Source: Developed for this research.

3.3.1.1 Research Paradigm

Creswell (2009) states that researchers start a project with certain assumptions and knowledge claims. These assumptions guide how researchers explore their research questions and how they learn while undertaking the research. According to Mackenzie & Knipe (2006, p. 2), "It is the choice of paradigm that sets down the intent, motivation, and expectations for the research". Before a method is chosen, the basic belief system or worldview that guides the researcher needs to be identified (Guba & Lincoln, 1994).

According to Guba and Lincoln (1994), three fundamental questions may be asked to define the basic beliefs underpinning choice of paradigm, and ultimately, lead a researcher to defend the research design in a way that is compelling yet recognizing that it can never be reported as absolute truth. The three questions are focused on ontological, epistemological, and methodological beliefs. When designing a research project, these questions guide the researcher to select the paradigm most aligned with the research intent and nature of the

research questions. Truth lies in the belief system of the beholder, meaning that as humans construct what is believed to be true, there exists no proof that any one truth exists (Guba & Lincoln, 1994). Because these beliefs are humanly constructed, "they are all inventions of the human mind and hence subject to human error. No construction is or can be incontrovertibly right; advocates of any particular construction must rely on *persuasiveness* and *utility* rather than *proof* in arguing their position" (Guba & Lincoln, 1994, p. 108). As such, the researcher's role is to argue their position by exploring ontological, epistemological, and methodological beliefs underpinning the adoption of the research design. Questions for defining paradigm options are summarized in Figure 3.3.

Figure 3.3: Questions for defining paradigm options

The ontological questions

What is the form and nature of reality and what can be known about it?

What is real?

The epistemological questions

What is the nature of the relationship between the knower and would-be knower?

What can be known?

The methodological questions

How does one go about finding out what can be known?

Based on the answers to the previous questions, what method is used?
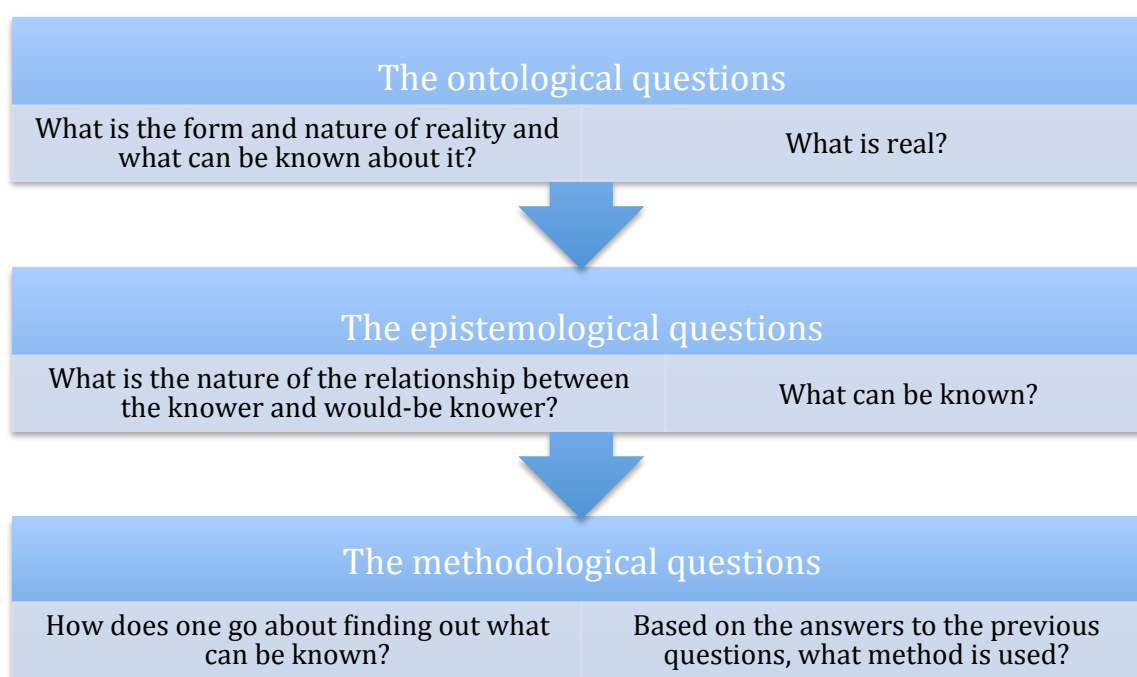
Source: (Summarized from Guba & Lincoln 1994, p. 108)

Though the philosophical discussion regarding research paradigms and knowledge claims is of staggering depth and breadth, Creswell (2009) has narrowed the discussion to four dominant worldviews: postpositivism, constructivism, advocacy/participatory, and pragmatism. It is from Creswell's (2009) descriptions that the knowledge claims assumed by the study is considered and defined. Figure 3.4 illustrates the worldviews according to Creswell (2009).

Figure 3.4: Worldviews by Creswell (2009)
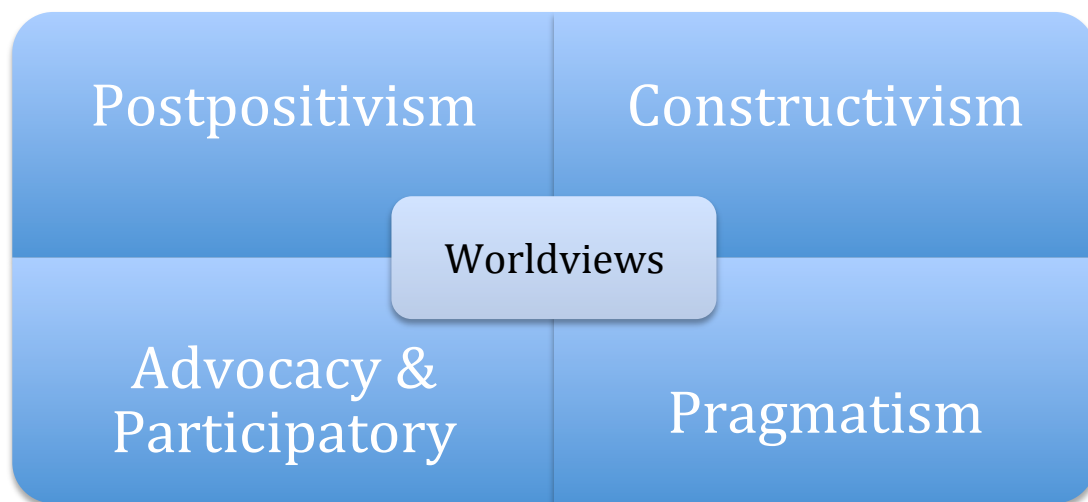
Source: Developed for this research.

Postpositivism is a paradigm concerned with empirical observation, measurement, and theory generation. Knowledge is discovered and verified through direct observations of the phenomenon. The researcher uses instruments to collect information in a form that seeks to measure participants' responses or observations the researcher has recorded (Creswell, 2009). The phenomenon studied is observed from the outside with the researcher attempting absolute objectivity.

Postpositivism, broadly defined, moves beyond the "positivist choice of the empirically corroborated law or generalization as the fundamental unit of scientific achievement" (Lapid, 1989, p. 239). As it gained intellectual currency, the idea of postpositivism engendered debates that described research knowledge using words such as paradigms, research traditions, worldviews, knowledge claims, and global theories (Lapid, 1989).

As summarized in the chart below, from a postpositivist perspective, truth can never be proven due to the fallibility of the human mind. For this reason, studies employing a postpositivist paradigm aim to accept or reject hypotheses on the basis of data or evidence collected and empirically analyzed. These studies usually begin by testing theory and using scientific methodology in order to predict and control variables through observation and measurement (Mackenzie & Knipe, 2006). Postpositivism responses to questions are summarized in Figure 3.5.

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Figure 3.5: Postpositivism responses to questions

Postpositivism response to ontological questions

reality exists but only imperfectly apprehendable due to human intellectual flaws

reality must be subjected to critical examination

Postpositivism response to epistemological questions

objectivity with emphasis placed on external mediators and critical peers to determine fitness of findings

Replicated findings that are probably true but subject to falsification

Postpositivism response to methodological questions

falsifying hypothesis rather than proving

data and evidence collected by researcher using instruments of measurement

Source: (Summarized from Creswell, 2009; Guba & Lincoln, 1994)

Postpositivist research is generally aligned with quantitative methods of data collection and analysis with the aim of theory generation (Mackenzie & Knipe, 2006). Philosophical commentaries from Husserl, Dilthey, and other prominent philosophers introduced the need for understanding the world from the human experience, an important perspective lacking from the positivist and postpositivist paradigms.

Looking for patterns of meaning in the human experience with inductive logic is closely aligned with the constructivism paradigm (Mackenzie & Knipe, 2006). Research designed within a constructivism paradigm examines multiple realities and truths from participants, and the resulting understanding is usually framed within social and historical perspectives. As summarized in the chart below, studies that are most appropriate for adopting a constructivist paradigm are those where the researcher seeks to understand the contextual aspects of the participants' experiences by visiting them in their natural settings. Constructivism responses to questions are summarized in Figure 3.6.

Figure 3.6: Constructivism responses to questions

Constructivism response to ontological questions

| reality is socially constructed | dependent on the individual or groups; more or less informed truth |

Constructivism response to epistemological questions

| findings created by the investigator | subjective, with investigator and that being studied linked |

Constructivism response to methodological questions

| meaning generated by researcher from field data | inductive, seeking understanding within context and personally gathering data |

Source: (Summarized from Creswell, 2009; Guba & Lincoln, 1994)

Constructivism implies that meaning is generated through social interaction within a community setting. The researcher collects data in the field in most cases and often takes a hermeneutical approach to interpreting what is observed and applying meaning to the data generated (Guba & Lincoln, 1994; Creswell, 2009). The researcher working from a constructivist perspective usually relies on qualitative data collection and analysis (Mackenzie & Knipe, 2006).

From an ontological standpoint, reality is socially constructed and dependent on the individuals or groups to inform the truth. The researcher and the study participants are closely linked.

In the 1980s and 1990s, a growing dissatisfaction with constructivist views and dominant scientific research paradigms emerged; a chief criticism was that they were developed from the perspective of a dominant 'white male' voice and as such did not adequately address the issue of social justice and represent the groups of people whose voices or causes were seldom addressed (Creswell, 2009; Mackenzie & Knipe, 2006). In contrast, the advocacy and participatory paradigm (sometimes referred to as the transformative paradigm) is mostly used

in research designed to bring about change and empowerment to political, oppressed, disenfranchised, or marginalized groups (Somekh & Lewin, 2011). As the chart below summarizes, researchers choosing the advocacy and participatory paradigm do so with a goal of emancipating, freeing, supporting, or expressing the voices of the marginalized group. Most studies involving feminist perspectives, racial discourses, critical theory, queer theory, or disability inquiry use the advocacy and participatory paradigm to underpin their studies (Creswell, 2009; Guba and Lincoln, 1994; Somekh & Lewin, 2011). Advocacy and participatory responses to questions are summarized in Figure 3.7.

Figure 3.7: Advocacy and participatory responses to questions

Advocacy and Participatory response to ontological questions	
reality is constructed by human beings	emphasis on construction by marginalized or disempowered groups

Advocacy and Participatory response to epistemological questions	
researcher as advocate for issues of inequality, oppression, domination, etc.	intertwined with politics and political agendas

Advocacy and Participatory response to methodological questions	
collaborative research to not further marginalize groups	advocacy with voices of participants heard to change and improve lives

Source: (Summarized from Creswell, 2009; Guba & Lincoln, 1994)

While some researchers are beholden to adopting postpositivism, constructivism, or advocacy/participatory paradigms for their studies, the pragmatist researcher takes an action-oriented approach that asserts that the research problem is the central focus of paradigm adoption (Mackenzie & Knipe, 2006). Pragmatists seek to understand the problem and pose probable solutions or enhancements based on a deep understanding of the problem or situation (Somekh & Lewin, 2011). Summarized in the chart below, pragmatists are not committed to one particular paradigm, nor are they interested in the heated philosophical debates around what constitutes "reality." From a pragmatic perspective, "Truth is what

works at the time" (Creswell, 2009, p. 12). Pragmatism responses to questions are summarized in Figure 3.8.

Figure 3.8: Pragmatism responses to questions

Pragmatism response to ontological questions	
not committed to any one system of philosophy and reality	not based in dualism of other paradigms;truth is seen as what works at the time

Pragmatism response to epistemological questions	
understanding the problem is paramount	application and solutions to problems

Pragmatism response to methodological questions	
establish purpose for mixed methods studies	use quantiative and/or qualitative as best fit for understanding the research problem

Source: (Summarized from Creswell, 2009; Guba & Lincoln, 1994; Somekh & Lewin, 2011)

In terms of this study, a postpositivist approach would not have yielded the depth of understanding required to adequately address the research and thus would not be an appropriate paradigm to underpin the research design. The researcher, in order to understand the phenomenon from the perspectives and experiences of the participants, deemed the knowledge claims of postpositivism as misaligned with the research questions and focus of the study.

The rationale for not choosing a constructivist paradigm for this study was that the researcher would not be physically visiting sites and observing the interaction of teachers and therapists within their school community. A field study would be very difficult, in that the resources of time and money did not allow for visiting locations throughout the United States. Additionally, the challenges of obtaining permission to visit schools, talk with students, interrupt learning time, and other logistical considerations would be insurmountable obstacles for the researcher.

The knowledge claims of constructivism rely heavily on the belief that the researcher is part of the social creation of the knowledge constructed (Creswell, 2009). For this study, the researcher sought to set aside preconceived opinions about the phenomenon to allow the participants' experiences and perspectives to direct the research findings. For the reasons described above, the researcher did not adopt the constructivism paradigm.

The advocacy/participatory paradigm was not a good fit for the study in that the two groups involved in the study (teachers and therapists) would not be considered to belong to marginalized groups. The research is not political in nature, nor is it focused on advancing an agenda; instead, the researcher seeks to understand the relationships formed between teachers and therapists working in collaborative classroom settings.

The knowledge claims of the pragmatism paradigm most closely align with the research intent and epistemological understanding regarding real-world application and problem solving. Though some argue the hegemonic role of positivism, it is the questions being asked that must guide the research design, according to pragmatists. "By focusing on the phenomenon under examination, rather than the methodology, researchers can select appropriate methodologies for their enquiries" (Falconer & Mackay, 1999).

The philosophical implications of pragmatism attempt to find a middle ground and a workable solution between the philosophical dualities of subjectivism and objectivism, focusing on the more moderate and commonsense versions of these concepts based on how well they work in solving problems (Onwuegbuzie & Leech, 2005). According to Creswell (2009), pragmatism opens the doors to solving real-world problems using multiple methods, different worldviews, and different assumptions.

This study has adopted the pragmatism paradigm, whereby methods and data collection tools may have their underpinnings in qualitative, quantitative, or mixed method approaches, depending on how well the approaches lead to understanding what is being studied and ultimately answering the questions posed. Creswell (2013) strongly endorses a mixed methods design embedded in a pragmatist knowledge paradigm as meeting the need to understand the objectives of the research through multiple research phases using both qualitative and quantitative methods.

The focus of the study is to understand, in a deep and meaningful way, how teachers and therapists collaborate, and build their relationships within collaborative situations. As therapists are being directed by their supervisors and the AOTA to collaborate within the classroom rather than removing students from that setting for therapy treatments, 'best practice' for teachers and therapists to collaborate within the classroom setting is yet unknown. These are uncharted waters, with some teachers and therapists moving forward despite their limitations in terms of experience and knowledge while others may remain in a state of inertia in their practice. As such, the study is primarily exploratory and seeks to build on initial evidence, and further evidence that promotes meaningful advances in training and practice.

Adopting the pragmatism paradigm may help bridge the gap between theory and practice in the education and therapy fields (Buchanan, 1998). A central premise of the study is to provide evidence in identifying elements of best practice associated with successful teacher and therapist collaboration. Booth, Colomb, and Williams (2008, p. 19) best sum up the intent and paradigm adoption of the study;

> "You take a big step toward more significant research when you can say to readers not just *Here are some facts that should interest you,* but *These facts will help you do something to solve a problem you care about."*

Having adopted the pragmatism paradigm, the research design now moves forward to choosing a quantitative, qualitative, or mixed method research approach to the study.

3.3.1.2 Quantitative and qualitative research approaches

As discussed earlier, the pragmatism paradigm asserts that the research questions themselves determine whether a quantitative, qualitative, or mixed methods approach would prove optimal for a study.

Quantitative research. A quantitative approach is generally used for inquiry focused on numerical data that generates or confirms theory (Somekh & Lewin, 2011). Words associated with quantitative research include experimental, empirical, and statistical. The philosophical roots of quantitative research are positivism, logical empiricism, and realism. Samples are

usually large, random, and representative. Data is generally collected through instruments such as scales, test, surveys, questionnaires, or computer data algorithms. Positivism retains its insistence that psychological science is objective, generalizable, and preferred over other forms of scientific inquiry (Breen, 2010). It premises that knowledge can be controlled, arranged, and engineered to facilitate learning (Buchanan, 1998).

From the past to the present, the epistemologies of positivism remain consistent, with the general tenet being that objective reality exists, and that it can be known only by objective means (Patomaki & Wight, 2000). By using organizational principles, the seemingly chaotic nature of the world can be ordered into a logical, linear explanation of why we do what we do, and how we do it. The aim of positivism is to find objective ways to control and predict human and natural phenomena (Lees, 2007). The preferred mode of research is the empirical method, which includes measuring organizational behavior using hypothesis testing and controlling for variables (Hemsley-Brown & Sharp, 2004). The ultimate goal is to predict human behavior; embedded in this prediction is the staunch belief that human behavior is predictable, organized, and controllable (Patomaki & Wight, 2000).

Many argue that, from an epistemological standpoint, the positivist paradigm falls short when it comes to explaining human behavior, and is best used for the natural sciences (Breen & Darlaston-Jones, 2012; Buchanan, 1998; Hemsley-Brown & Sharp, 2004; Krauss, 2005; Lees, 2007).

Qualitative research. Philosophical roots of qualitative research are phenomenology, symbolic interactionism, and constructivism. Sample sizes are usually small, nonrandom, and purposeful. Data collection instruments are primarily interviews, observations, or documents. Inductive reasoning is the primary mode of analysis, with findings comprehensive, holistic, expansive, or richly descriptive (Merriam, 2009, p. 763). Krauss states, "the construction of meaning is the task of qualitative research and reflects the specific methods used in the qualitative data analysis process." This study adopts the stance that to meaningfully address the research questions, deeper meaning construction is of critical importance and as such, the study is primarily qualitative.

Mixed methods. There has been an ongoing debate since the latter part of the 19th century regarding quantitative and qualitative research approaches (Onwuegbuzie, 2000). A pragmatic perspective views the two approaches as belonging on an epistemological continuum that supports choosing research methods that allow the understanding of different phenomena from the breadth of quantitative observations to the depth of meaning achieved through qualitative approaches. The methodology chosen depends on what one is trying to do, rather than a commitment to quantitative or qualitative approaches (Falconer & Mackay, 1999). Mixed method research involves the planned use of quantitative and qualitative methods, either as embedded or sequential designs, in the data collection and analysis techniques within the same study or project.

As noted the choice of research design is prompted by the purpose of the study and research questions. This study seeks to principally understand the nature and dynamics of successful teacher and occupational therapist collaboration. In addition, the study seeks to contribute to practice by using the insights gained from the qualitative inquiry in order to review and refine a collaborative training program. The efficacy of including new theoretical perspectives into the program and the meeting of stakeholder needs by quantitative evaluation is therefore a logical extension of the study in achieving the pragmatist ideal that research helps solve problems of concern to particular individuals or groups (Booth, 2008).

3.3.1.3 Overview of mixed methods design

The research design of this study is informed by its purpose and research questions. These are primarily exploratory seeking to gain depth of understanding of the practice of collaboration between occupational therapists and teachers. The study further seeks to integrate its initial findings into a training program and provide evidence as to the efficacy of the program. As noted above, the study seeks to address and contribute to the practice in an understudied dimension and context of collaboration. Creswell (2013) supports the notion that in adopting a pragmatist paradigm, studies including a mixed methods design is most appropriate.

Mixed methods research is research design with philosophical assumptions as well as methods of inquiry (Klassen, Creswell, Plano Clark, Smith, & Meissner, 2012). As a

methodology it adopts philosophical stances related to the direction of the research process in how quantitative and qualitative approaches are mixed, the collection of data and the most adequate analysis. As a method, mixed methods focuses on the methods of collecting, analyzing, and staging the quantitative and qualitative elements of the study. This interpretation is broadly supported in the literature (Klassen et al., 2012).

Mixed methods are driven by particular types and needs of research problems. The following needs are associated with adopting a mixed methods approach to this study; the need to explain initial results, the need to enhance the study with a second method and most importantly the need to understand a research objective through multiple phases (Creswell & Plano Clark, 2011). Mixed methods also face challenges and despite the well-documented rigor of the mixed methods design it still faces criticism mostly due to misunderstanding this 'new method' (Creswell, 2011). The most significant challenge in adopting mixed methods in this study is the challenge of scope, available time, and resources. While a more comprehensive quantitative research study is being launched in collaboration with Touro College, New York, this study will limit its quantitative methods to descriptive statistics related to a training evaluation survey.

The mixed method design of the study is described as an exploratory sequential design (Creswell & Plano Clark, 2011). The design occurs in two interactive phases beginning with the collection and analysis of qualitative data in the first phase. Building on the findings of the first phase a second quantitative data collection and analysis phase is conducted to test the initial findings. Figure 3.9 illustrates the mixed methods design in terms of its phased approach.

Figure 3.9: Mixed method design and phased research options

- QUALITATIVE PHASE (semi-structured interviews)
- Phenomenological
- Causal Layered Analysis

Phase 1

Program Refinement

- Incorporate qualitative findings into the review and development of an enhanced collaborative training program
- Pilot the program

- QUANTITATIVE PHASE (evaluation surveys)
- Descriptive statistics confirming:
  - Theory integration
  - Enhance program efficacy

Phase 2

Source: Developed for this study

3.3.1.4 Overview of qualitative methodology

Understanding the world through those actively participating within the working environment is the focus of this study. To fully explore perceptions and understand the phenomenon of collaboration within the context of participants' workplaces requires operating under the epistemological assumption that "the best way to understand any phenomenon is to view it in its context" (Krauss, 2005). This assumption is best aligned with a qualitative research study. The researcher, wanting to be fully immersed in the phenomenon of collaboration, accepted the limitations inherent in a research design that departs from positivist ideals.

The research questions attempt to understand perceptions of the "lived everyday world from the subjects' own perspectives" (Kvale & Brinkmann, 2009, p. 27). When determining research design, the research aims must align philosophically with the approach used. The researcher determined that the philosophical underpinnings of phenomenology aligned well with the aims of this study, in that phenomenological studies are "interested in understanding social phenomena from the actors' own perspectives and describing the world as experienced

by the subjects, with the assumption that the important reality is what people perceive it to be" (Kvale & Brinkmann, 2009, p. 26).

An underlying assumption of the study is that in adopting a pragmatist paradigm, it is indeed in the actors' perspectives and worldviews where the solution to the research questions can be found. "Bracketing" is a term commonly referred to in phenomenological studies whereby the researcher puts aside assumptions and usual ways of perceiving in order to study an experience from the perspective of the participants (Lester, 1999). Phenomenologists believe that reality is what people perceive it to be according to the perceptions and descriptions from those experiencing the phenomenon (Kvale & Brinkmann, 2009). In the 1900s, Edmund Husserl founded the philosophy of phenomenology, with Martin Heidegger, Jean-Paul Sartre, and Maurice Merleau-Ponty making later contributions to the work (Kvale & Brinkmann, 2009).

Phenomenology-based research encompasses many different methods including interviews, conversations, participant observation, action research, and focus groups (Lester, 1999). A key precept of phenomenological research is making recommendations (based on the research data) that may lead to more research possibilities for the future, a better situation for those involved in the study, or suggestions for action (Baritt, Beekman, Bleeker, & Mulderij, 1984). These recommendations thus seek to provide meaningful solutions to issues and are thus closely aligned with pragmatism.

A qualitative phenomenological research phase using semi-structured interviews was adopted as the first phase of the study for answering the Research Question 1. The method is appropriate in that it allows for rich investigation and description of variables that impact and influence collaboration between therapists and teachers (Kvale & Brinkman, 2009).

According to Salmons (2010), when investigating human experiences, using phenomenological methodologies is a viable way to understand a phenomenon through the perceptions of the research participants. A phenomenological method was therefore an appropriate choice for a study designed to investigate teachers and therapists' experiences and perceptions of collaboration within an RTI framework. The role of the researcher was to

"strike a balance between keeping a focus on the research issues and avoiding undue influence by the researcher" (Lester, 1999, p. 2).

A qualitative phenomenological study allowed the researcher to deeply understand the present state of collaboration in order to provide information that may guide practice in the future. In order to change the future, one has to look at the perceptions, assumptions, and myths deeply imbedded in the present (Inayatullah, 2014). According to Barab and Squire (2004), researchers who undertake studies in order to create change that positively impacts the future are referred to as "learning scientists." Learning scientists understand that the real world of practice is not neat and linear but often messy when analyzed within contexts, and context is an important aspect of the narrative from which rich data is gathered (Barab & Squire, 2004).

A fundamental assumption of the learning sciences is that, "knowing is a process distributed across the knower, the environment in which knowing occurs, and the activity in which the learner is participating" (Barab & Kirshner, 2001). Barab & Squire (2004, p. 1), state, "If one believes that *context matters* in terms of learning and cognition, research paradigms that simply examine these processes as isolated variables within laboratory or other impoverished contexts of participation will necessarily lead to an incomplete understanding of their relevance in more naturalistic settings." The primary intent of the study is to seek solutions to the research issues related to teacher and therapist collaboration. These solutions are necessarily to be found at the deeper levels of meaning associated with deeply held assumptions, worldviews, and individual narratives. As such, a pragmatist paradigm necessitates a methodological approach that is able to reveal deeper more granular meaning underpinning the actions that are easily observed. It also provides depth of understanding of the phenomena to inform practical program enhancements and test these in terms of Research Question 2 (Phase 2 of the study).

This study on collaboration between occupational therapists and general education teachers was based on strategies, values, and viewpoints between individuals working within systems where collaboration challenges were consistently reported in the research literature but differed in context. For the teams that experienced success, a deep exploration of context and

environment provided reflexive discussion for individuals attempting collaboration, as well as insight into creating transformative spaces to envision alternate futures as described by Inayatullah (2004). The study not only sought to describe the state of collaboration, but also unpack meaningful discourses, possible solutions, and insights for action toward more effective practice (Inayatullah, 2004). The uncovering of deeper layered interconnection allows for more authentic and sustainable transformation toward a better state, or in this case, better collaborative practice that lasts.

Ability is not privy of only a few (Barab & Plucker, 2002). Understanding or knowing is a socially constructed experience and should be expanded from the knowledgeable few, so that all who might benefit from the knowledge and skills may have an opportunity to share in the cognitive wealth.

Phenomenologists use a technique called reduction to suspend judgment about the content of the participants' experience; the goal is not to provide descriptions of separate phenomena, but rather, a common "essence" between the phenomena (Kvale & Brinkmann, 2009, p. 27). This discussion moves from the rationale behind choosing a phenomenological method in the research design to using the interview as the tool of inquiry for the "investigation of essences" (Kvale and Brinkmann, 2009, p. 27). This section justified a qualitative phenomenological research design as the most appropriate approach to answering the research questions. A method of inquiry and analysis was required to achieve the outcomes of the design and identify issues relating to the phenomenon both in terms of breadth across stakeholder disciplines and depth within each discipline.

3.3.1.5 Causal Layered Analysis (CLA) as a phenomenological method of inquiry and analysis

As discussed earlier, the research questions require data gathering that moves beyond surface or superficial reporting of observed experiences. Causal Layered Analysis (CLA), as a phenomenological method of inquiry, allows for articulating experiences and identifying issues by deconstructing and reconstructing data within layers of meaning (Bussey, 2014). Each layer adds depth of understanding from the surface signs of an issue to exploring deeper

structures of meaning including systems, assumptions, perceptions, worldviews, myths and metaphor (Conway, 2012).

CLA seeks to identify the dominant worldviews and metaphors that affect assumptions and limitations that people bring to a situation (Inayatullah, 2005). By examining underlying layers of meaning and recognizing that deeply held beliefs strongly influence decision making, systems creation and ultimately lead to that which we commonly are able to empirically observe, transformative spaces may be created that were not otherwise readily discoverable through traditional analytical methods. Much like the metaphor of an iceberg, CLA assumes that the empirical manifestations of a problem (the ice seen above water) are only partly descriptive of a much deeper and larger problem. Located in the social science CLA seeks to identify the "essence" underlying human behavior and ultimately the creation of systems and / or patterns that give rise to problems.

The theoretical underpinnings of CLA are the integration of empiricist, interpretive, critical, and action learning modes of knowing (Inayatullah, 2005). In adopting CLA for data analysis, the goal was to move beyond reporting thematic data restricted to observing actions and possible patterns in order to look for deeper meaning as commonly associated with qualitative content analysis or thematic analysis. Rather, in addition to content analysis, the study adopts CLA descriptive layers. These four layers include litany, systems, worldview, and myth or metaphor and are described fully in Chapter 4 (Inayatullah, 2005).

3.3.2 Phase 1 research strategy of inquiry: Interview

According to Kvale & Brinkmann (2009), qualitative interviews were used in varying degrees throughout the 20th century. The influential findings of Freud and Piaget were based in part on interviews. Freud interviewed patients and produced new psychological knowledge about dreams, neuroses, personality, and sexuality. Freud's work is still referenced one hundred years later. There is therefore a rich empirical history associated with the utility of interviews as a valuable method used to describe better practice.

3.3.2.1 Selection of interview research strategy

The power of the interview to capture worldviews, assumptions, and alternate ways of knowing is well documented in literature (Kvale & Brinkman, 2009; Merriam, 2009; Seidman, 2006; Somekh & Lewin, 2007). "Interviewing is an active process where interviewer and interviewee through their relationship produce knowledge" (Kvale & Brinkmann, 2009, p. 17).

A quality interview produces knowledge that is valuable and insightful, while providing practical application and resolution of issues deemed important to those involved in the research. Interviews may produce types of knowledge that can be analyzed and reported to create action-oriented solutions to problems. The following chart summarizes Kvale & Brinkmann's (2009) types of knowledge produced through the interview process. The seven key features are summarized in Table 3.1.

Table 3.1: Seven key features regarding the nature of interview knowledge

Knowledge as Produced	Socially constructed, activity created through questions and answers, co-authored by interviewer and interviewee
Knowledge as Relational	Inter-relational and inter-subjective with the goal of producing knowledge about the human situation that is neither objective or subjective
Knowledge as Conversational	Producing descriptions and narratives of everyday experiences as well as the epistemic knowledge justified discursively in a conversation
Knowledge as Contextual	Sensitive to the qualitative differences and nuances of meaning within context

Knowledge as Linguistic	Constituted through linguistic interaction, the participants' discourses, both orally and transcribed
Knowledge as Narrative	Eliciting narratives that inform us of the human world of meaning
Knowledge as Pragmatic	Providing knowledge that enables us to cope with the world in which we find ourselves

Source: (Summarized from Kvale & Brinkmann, 2009, pp. 54-56)

Kvale and Brinkmann (2009) state that interviews are a valuable method for studying how people describe and interpret, from their own perspectives, the experiences of their lived world. Using the interview to gather data for this study allowed the researcher to understand the collaborative relationships between therapists and teachers in a deeper way than using tools of measure such as surveys and questionnaires commonly aligned with a positivist approach. There are debates about the relationship of the interviewer's role in the interviewing process and how much knowledge is constructed in the interview by the participant and by the researcher (Legard, Keegan, & Ward, 2003). The next section discusses the researcher's position in the study in order to address issues of validity and bias.

3.3.2.2 Positioning of the researcher in the study

When conducting interviews, it is important to identify the role the researcher plays when gathering information. Salmons (2012, p. 134) describes three roles using the metaphors of "the miner who excavates information, the gardener who cultivates exchange, or the traveler who journeys with the participant." For the purpose of this study, the researcher took on the role of the gardener who cultivates exchange of information, while fully acknowledging the interactive relationship between researcher and participants.

According to Salmons (2012, p. 19), "the gardener uses the question to plant a seed and follow-up questions to cultivate the growth of ideas and shared perceptions." The researcher made every attempt to practice what phenomenological researchers refer to as "Epoche." Epoche means to begin the study with an open mind and be prepared to listen for the

emergence of new knowledge even though the researcher has knowledge of the subject being studied (Salmons, 2012).

When practicing Epoche, the researcher consciously identifies and sets aside preconceived ideas, biases, and anticipated outcomes. Clearing one's mind and becoming self-aware is an important preparation for the interview. Though the researcher is an insider of the community involved in the research study, all attempts were made to maintain Epoche and a degree of balance between an etic (outsider) and emic (insider) position (Salmons, 2012).

In addition, choosing to design a phenomenology study required the researcher to use reduction and bracketing in an "attempt to place the common sense and scientific foreknowledge about the phenomena within parentheses in order to arrive at an unprejudiced description of the essence of the phenomena" (Kvale & Brinkmann, 2009, p. 27).

3.3.2.3 Selection of interview structure

There are three generally recognized structures for interviews: highly structured, semi-structured, and unstructured (Merriam, 2009). Determining which structure to use depends on the research questions and focus of the study. According to Merriam (2009), highly structured interviews require wording and order of questions to be predetermined, leaving no flexibility in the direction of course for the interview. On the other side of the interviewing continuum is the unstructured interview. This interview format is informal and best used when the researcher knows little about the phenomenon being studied (Merriam, 2009).

When selecting a semi-structured interview format "the researcher will have some sense of the themes they wish to explore, and interviews will generally be based on some form of a topic guide (or interview schedule or guide) setting out the key topics and issues to be covered during the interview" (Legard, et al., 2003, p. 141). Rather than pre-conceived themes based on the researcher's own knowledge and assumptions, the questioning framework provided by CLA was deemed a more open and authentic approach to Epoche in the process of the formulation of questions.

The researcher had knowledge about the phenomenon of collaboration and determined that a semi-structured approach would most likely generate the information needed to answer the

research questions. The semi-structured format found a middle ground between the two structural extremes but still maintained an element of flexibility within a questioning framework. According to Legard, et al. (2003, p. 141), "The first key feature of the interview is that it is intended to combine structure with flexibility." Using a semi-structured approach allowed the interviewer flexibility to guide the interview using a list of questions and follow-up with additional probes to uncover and unpack deeper meaning during the interview conversation (Seidman, 2006). Table 3.2 summarizes key features of the interview.

Table 3.2: Five key features of the interview

Feature One	Structure that allows for flexibility to permit topics to be covered in order most suited to the interviewee
Feature Two	Interactive by nature, with interviewer determining how much of oneself is brought into the questioning process
Feature Three	Uses a range of probes or follow-up questions to gain explanatory evidence of participant's meanings and explanations
Feature Four	Generative in that new knowledge or thoughts are created; participants may be invited to put forward new ideas and to propose solutions for problems raised during the interview
Feature Five	Tape recorded and generally conducted face-to-face

Source: (Summarized from Legard, et al., 2003, pp. 141-142)

With the simplicity of new technology that allows for video conferencing, an online synchronous format was chosen due to the need to reduce travel costs while still being able to reach teams in disparate geographic locations. Salmons (2012) defines online interviews as, "interviews conducted with information and communications technologies" (p. xviii). Synchronous is defined as, "focused real-time dialogue" (Salmons, 2012). Videoconferencing closely compares with face-to-face dialogue, so it lends itself well to semi-structured or unstructured interviews. According to Salmons (2012), the digital divide

is shrinking, and more people have both access to technology and a comfort level using it. For this study, online interviewing was appropriate because the participants use technology daily, and most had access to the specific technology required for the interviews. GotoMeeting™ software was chosen for videoconferencing based on the ease of use by the participants, and the ability to conduct rich interviews (for example, allowing for the researcher to acknowledge social cues and visual exchange).

3.3.2.4 Establishing interviewing protocol

The researcher conducted practice interviews prior to beginning the interviews with the actual participants. The practice interviews included asking a broad range of questions of therapists and teachers familiar with the research topic. These included both questions based on the CLA framework and those closely related to expected emergent themes. In addition, an expert (Dr. Luke van der Laan of the University of Southern Queensland) in CLA and interviewing protocol was consulted to review the questions and provide feedback. Based on feedback, some questions were modified to provide clarity for the participants. Most of the questions finalized in the protocol aligned closely with the CLA framework (see Appendix B for a copy of the interview protocol).

In addition, an ethics application that included the research questions was submitted to the University of Southern Queensland Human Ethics Committee and approved prior to beginning research (see Appendix C). Details regarding ethical procedures and considerations are included in section 3.11.

In preparation for commencing the online interview process, the following steps were taken:

    a) scheduled time as needed to test the technology prior to formal data collection;

    b) scheduled individual interviews with therapist and teacher pairs;

    c) prepared interview questions in advance, studied them, and asked the questions without excessively looking down at notes to maintain as much eye contact as possible with the interviewee;

    d) established routine prior to the interview, including basic logistics such as emailing consent forms, receiving signed consent forms, encouraging interviewee

to find a quiet, secure area from which to conduct the interview, providing back-up phone numbers for support in the event the interviewee had difficulty, and providing a phone number to conduct the interview by phone if there were complications prohibiting the interviewee from conducting the interview online;

e) confirmed time frame and anticipated length for interview; and

f) provided background information in advance so time was maximized with the interviewees (Salmons, 2012).

The requirements of a qualitative interviewer as described by Legard, et al., (2003) are threefold:

the ability to listen intently and with purpose;

the ability to think clearly and logically to decide how to proceed with further questions that deepen understanding; and

a good memory to remember to return to earlier comments to seek clarification or elaboration.

In preparation for each interview, the researcher was mindful of these three requirements. In order to be in the position to listen intently and with purpose, the researcher turned off phones (both cell phone and landline), notified office staff that there were to be no interruptions during the scheduled time, and conducted the interviews in a room with a closed door.

With regards to thinking clearly and logically, the researcher reviewed the interview questions prior to logging in to GoToMeeting™ and was mentally prepared to conduct the interview and think theoretically. As ideas emerged during the interviews, the researcher constantly checks to ensure cognitive insights are gained incrementally rather than making large cognitive leaps (Morse, Barrett, Mayan, Olson, & Spiers, 2002).

To compliment a daily learning journal, the researcher included written notes of important comments that needed clarification or elaboration both while interviewing and when reflecting on the analysis. This process worked well and assisted the researcher in remembering to ask essential follow-up questions throughout the current and future interviews (Kvale & Brinkmann 2009).

3.3.2.5 Phase 1 research: Summary

In order to answer the research questions, the researcher provided rationale for adopting the paradigm of pragmatism using a qualitative approach and a phenomenological method including the Causal Layered Analysis framework and method of analysis. Data would be collected by completing semi-structured interviews with eighteen practicing pairs, with each pair comprised of one general education teacher and one occupational therapist. Data analysis using the layered approach as described in Causal Layered Analysis, seeks to provide rich description and deep understanding of the pairs' collaborative relationships by unpacking responses starting at the surface layer and moving downward through the deeper layers. This process is described fully in chapter 4. Figure 3.9 illustrates the research design adopted for this study.

Figure 3.10: Illustrative summation of Phase 1 implementation

Strategy of Inquiry: semi-structured interview

Positioning: bracketing and Epoch

Protocol: CLA questioning framework

Interviewing: Gotomeeting™

Reflection: learning journal
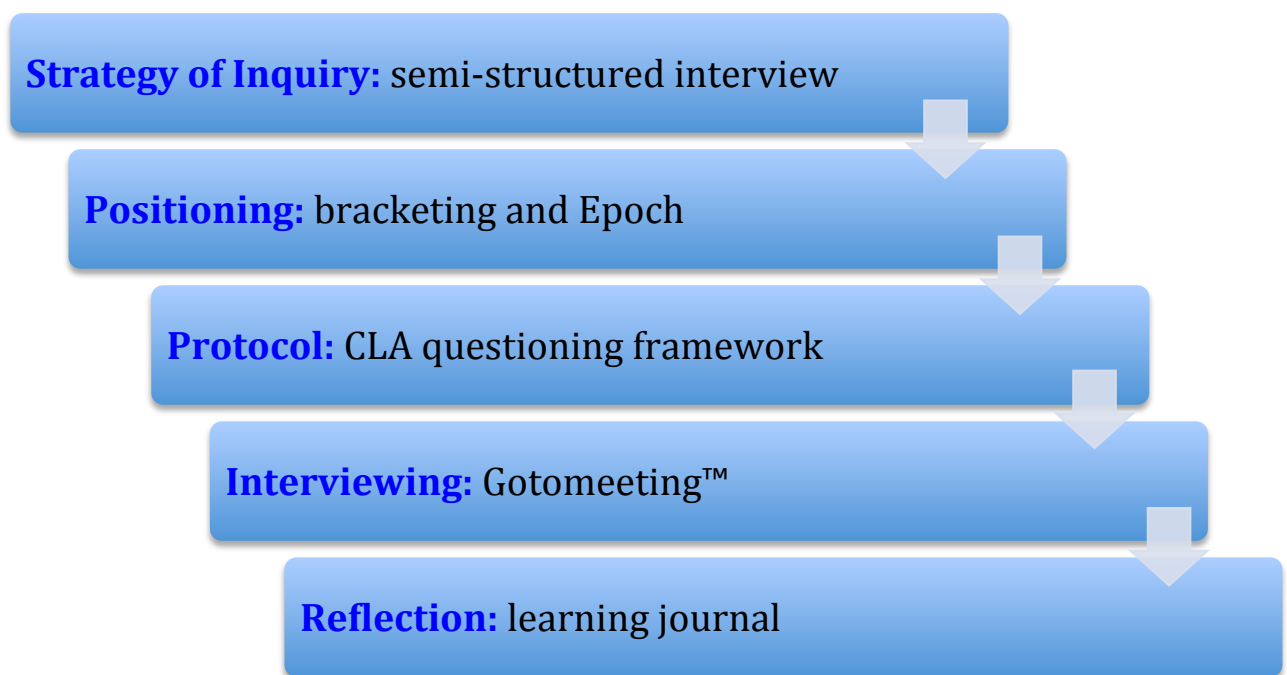
Source: Developed for this research.

3.3.3 Phase 2 Research strategy of inquiry: Evaluation Survey

A mixed method study aligns with knowledge claims of pragmatism including choosing the most appropriate approaches by focusing on the research problem and how best to answer the

research questions, rather than committing to one method (Creswell, 2009). For the purpose of this study, the addition of a survey in Phase 2 served to provide evidence and confirmation that the findings in Phase 1 were successfully integrated into the S'cool Moves training program as determined by responses of participants.

3.3.3.1 Selection of survey research strategy

To harness the strengths of both qualitative and quantitative approaches, triangulate data, and employ statistical tools, an evaluation survey was selected as the research strategy of inquiry for Phase 2 of this study (Somekh & Lewin, 2007). A survey is defined thusly, "a form of research which seeks information from a large number of people by means of questionnaires, which may be administered online or by post, and in some cases are collected through face-to-face interaction (Somekh & Lewin (2011, p. 329).

3.3.3.2 Selection of survey structure

The evaluation survey consisted of two parts. Part one included a highly structured, closed ten-question format employing a five-point Likert scale to determine level of agreement with each question. Part two of the evaluation survey included four sentence starters providing participants an option to add information or comments not accommodated for in the closed question section of the survey. Sentence starters were as follows: I learned, I need more information about, I have questions about/was confused by, and I appreciated. Questions were chosen to determine the effectiveness and value of integrating the Phase 1 research findings including the introduction of CLA into the S'cool Moves training program.

Considerations in survey structure included ease of completion by participants, clear language, and avoidance of ambiguity (see Appendix D for a sample evaluation survey).

3.3.3.3 Establishing survey protocol

At the conclusion of each training session, participants were asked to voluntarily complete the course evaluation. Participants chose to complete the survey without any identifying information or complete the section provided that identified name, school, and position. Participants placed completed evaluations face down on a table by the door while exiting the

training facility. Collected evaluation data from nine training sessions were entered into QuestionPro™ by an individual not associated with S'cool Moves and not personally invested in the outcomes of the study.

3.3.3.4 Phase 2 research: summary

The addition of the survey in Phase 2 of the study provided quantitative evidence needed to confirm the desired outcomes of integrating the research findings from Phase 1. Quantitative data was collected and analyzed to determine the effectiveness and value of the revised training framework in terms of enhancing collaboration, making a positive contribution to practice, and improving the knowledge base of participants in attendance.

Figure 3.11: Illustrative summation of Phase 2 implementation

Strategy of Inquiry: evaluation survey

Survey structure: ten question, closed, Likert scale

Protocol: completed anonymously at end of training sessions (9 sessions total)

Analysis tool: QuestionPro™
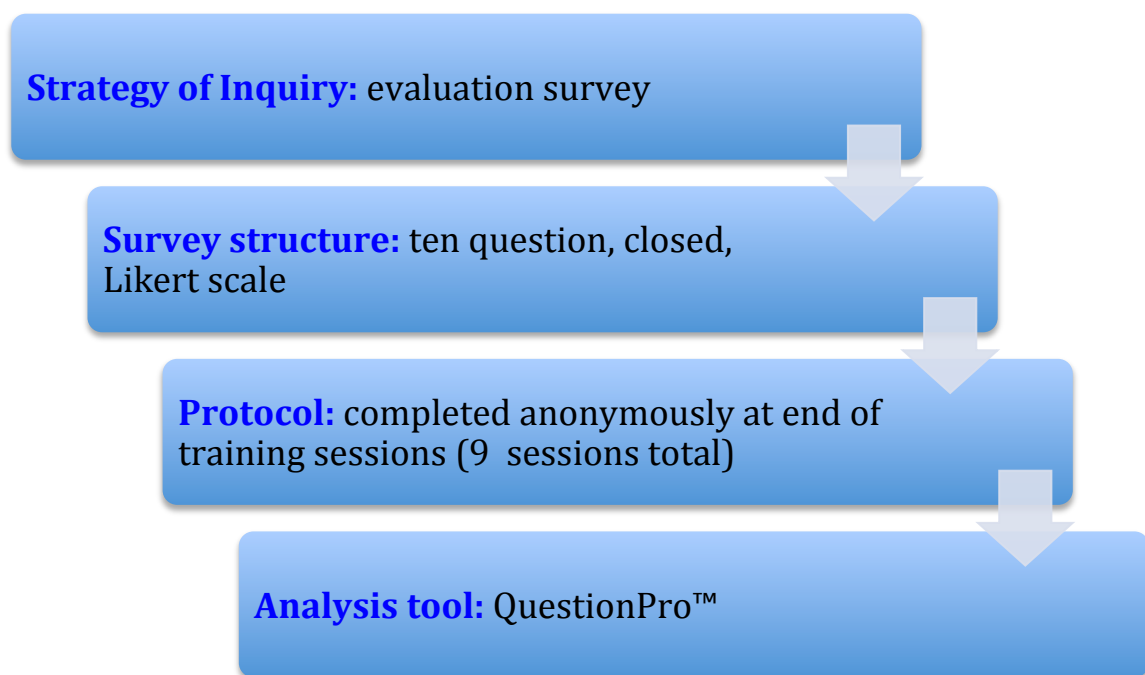
Source: Developed for this research.

3.4 ASSESSING THE VALIDITY AND RELIABILITY OF THE STUDY

The study has been designed from the pragmatist paradigm, allowing the questions of the study to determine the best method for collecting data. A mixed method exploratory sequential design has been argued as the most appropriate research design for the study. The study is predominantly focused on the Phase 1 phenomenological qualitative methodology

using semi-structured interviews and content analysis / CLA. Based on these finding, the S'cool Moves training program was reviewed and refined. The Phase 2 quantitative methodology using program evaluation surveys and descriptive data analysis served to confirm the degree to which the findings from Phase 1 were effectively integrated into the revised training framework. As such, the issues regarding validity and reliability of a mixed method design will be discussed within the context of the pragmatic view.

It is generally agreed in the literature that reliability and validity were tools derived from essentially a positivist epistemology (Bashir, Afzal, & Azeem, 2008; Golafshani, 2003; Lincoln & Guba, 1985; Onwuegbuzie & Leech, 2007; Seale, 1999). However, at its most basic, validity and reliability are concepts that are associated with the objective of research more generally, rather than the exclusive domain of the scientific tradition. For the purpose of this study, the following definitions of reliability and validity are adopted:

Reliability:

"…the extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability" (Joppe, 2000, p. 1 as cited in Golafshani, 2003).

Validity:

"validity determines whether the research truly measures that which it was intended to measure." (Bashir et al., 2008, p. 37).

Kvale and Brinkmann (2009, p. 242) state, "Issues of reliability and validity go beyond technical or conceptual concerns and raise epistemological questions about the objectivity of knowledge." In their seminal work, qualitative researchers Lincoln and Guba (1985) introduced the concepts of credibility, transferability, dependability, and confirmability to reconceptualize validity and reliability in qualitative studies. The introduction of concepts more closely aligned with an interpretivist approach received mixed reviews from the research community. Positivists viewed the reconceptualization as a limitation to the rigor expected of empirical research. Indeed, some qualitative researchers agreed with the positivists and recommended qualitative researchers retain the concepts of reliability and

validity as it had been used for quantitative studies (Morse, Barett, Mayan, Olson, & Spiers, 2002).

Expanding the definitions of validity and reliability by using common terms has lead to confusion due to authors using parallel terms to represent reliability and validity. Some authors differentiate between validity and reliability in qualitative research, while others provide alternate words for both the terms together and do not differentiate one from the other. Table 3.3 compares and summaries from the literature the proliferation of term, phrases, and concepts that lead to confusion in literature when discussing the validity and reliability of qualitative research.

Table 3.3: Quantitative and qualitative terms compared and summarized

Author(s)	Quantitative Term	Qualitative terms, concepts, or phrases
Bashir et al., 2008	Reliability	Generating understanding
	Validity	Fit between description and explanation
Creswell and Miller, 2000	Validity	Affected by researcher's perception and choice of paradigm assumption
Davies and Dodd, 2002	Validity	Rigor
Golafshani, 2003	Validity	Credible, defensible, Generalizability
Kvale and Brinkmann, 2009	Validity	Investigation Communication Action

Lincoln and Guba, 1985	Validity & Reliability	Credibility, transferability, dependability, confirmability
McMillan and Schumacher, 2006	Validity	Congruence between explanations of phenomena and realities of the world
Merriam, 2012	Internal Validity	Credibility
	External Validity	Transferability
	Reliability	Consistency
Miles and Huberman, 1994	Internal Validity	Credibility, authenticity
	External Validity	Transferability, fittingness
	Reliability	Dependability, auditability
Morse, et al., 2002	Validity	No parallel terminology
Patton, 2001	Reliability & Validity	Credibility, integrity, validity, accuracy
Seale, 1999	Reliability & Validity	Trustworthiness
Stenbacka, 2001	Reliability	Reliability is irrelevant
	Validity	Validity needs redefining

Source: (Compiled from sources as cited in the table.)

According to Onwuegbuzie and Daniel (2003), both quantitative and qualitative research are fraught with analytical and interpretational errors due to the failure to view qualitative and quantitative research on an interactive continuum that provides for a holistic and comprehensive approach to research. The issue of how to define validity and reliability in qualitative research is an excellent example of the lack of an interactive continuum and

remains a topic of confusion but may best be answered by adopting mixed methods as suggested by Clark and Creswell (2011) and Creswell (2013)

Accordingly, this two-phase study employed the qualitative interview and quantitative survey in order to reduce analytical and interpretation errors by using methods from both approaches on the interactive continuum.

As suggested by Creswell (2009), validity and reliability of a study need to be defined by the underlying assumptions of the paradigm from which the study is aligned. The study, as discussed in detail earlier in this chapter, was a qualitative phenomenological study using the semi-structured interview as the method for collecting data. As such, validity and reliability concerns are discussed in the following sections based on the epistemological underpinnings of the research design and methodology.

3.4.1 Validity of the study

Kvale and Brinkmann are well-recognized experts in using the interview in qualitative studies. In the social sciences, validity relates to whether a method investigates what it is supposed to investigate (Kvale & Brinkmann, 2009). According to Kvale and Brinkmann (2009, p. 248), from the perspective of qualitative research, the concept of validity has expanded to include the "craftsmanship and credibility of the researcher." The authors' expansion on the concept of validity comes from "the dismissal of an objective reality against which knowledge is to be measured," as well as the ethics and moral integrity of the researcher who is "evaluating the quality of the scientific knowledge produced" (Kvale & Brinkmann, 2009, p. 248).

The addition, Phase 2, the evaluation survey, served to confirm findings of Phase 1 and determine the extent to which the research findings were adequately translated and integrated into practice through the revised training framework.

Table 3.4 summarizes key aspects of the study's validity using Kvale and Brinkmann's (2009) seven-step framework highlighting how the craftsmanship and credibility of the researcher contribute to the validity of the study. In addition, strategies taken by the

researcher to strengthen the validity of the study are noted, including citations from authors supporting the steps taken as means to strengthen validity.

Table 3.4: Increasing validity of a study using the Kvale and Brinkmann's (2009) seven-step framework

STEP 1: Thematizing: soundness of theoretical presuppositions of a study; logic of the derivations from theory to the research questions

Strategies

The researcher presented a sound theoretical framework for designing the study to answer the research questions and ensure congruence between the research question and the components of the method (Merriam, 2009; Morse, et al, 2002; Shenton, 2003).

The research method was a two-phase phenomenological study; Phase 1 using the semi-structured interview as a data-gathering tool is well established in qualitative investigation and Phase 2 using an evaluation survey to confirm findings from Phase 1 (Kvale & Brinkmann, 2009; Seidman, 2006).

The researcher had expert knowledge of the research topic and was familiar with the organization, as well as the roles of the participants within the organization (Legard, et al., 2003; Shenton, 2003;).

The researcher adopted the practice of Epoche while structuring the interview questions within a predominantly CLA framework. The CLA framework explicitly challenges the observer's assumptions, worldviews, and narratives.

STEP 2: Designing: knowledge produced involves adequacy of design and methods used; ethical and involves beneficence, producing beneficial knowledge.

Strategies

The study underwent review from the University of Southern Queensland's ethics committee, and ethical considerations were outlined and addressed (full discussion in the ethics portion of this chapter). Participants signed consent forms, which included opt-out information. When participants needed organizational consent to participate, permission was received (Kvale & Brinkmann, 2009; Merriam, 2006; Seidman, 2006).

A mixed method exploratory sequential design was argued as the most appropriate design

for this study.

The typical purposeful sampling strategy for Phase 1 and Phase 2 included a sampling frame that was similar to the larger population the participants represented, and provided variation or diversity in the sample selection within the context of the study's focus (Merriam, 2006; Morse, et al., 2002; Seidman, 2006).

The methods used for the subject matter and purpose of the study were ethical and produced knowledge beneficial to the human situation while minimizing harmful consequences (Kvale & Brinkmann, 2009; Lincoln & Guba, 1985; Merriam, 2009).

STEP 3: Interviewing: trustworthiness of subject's reports and quality of interviewing; continual checking of information

Strategies

Adequate engagement in data collection for time and resources available to the research netting saturation for the aims of the study (Kvale & Brinkmann, 2009; Merriam, 2009).

The researcher carefully questioned the meaning of what was said to lead to validation of information obtained through member checking and peer debriefing throughout the course of the study (Lincoln & Guba, 1985; Merriam, 2009).

STEP 4: Transcribing: valid translation from oral to written language through choice of linguistic style of transcript

Strategies

One transcriber transferred each of the interviews from oral language to written language in a format that was consistent for each interview (Kvale & Brinkmann, 2009).

Participants read their transcript, clarified as needed, and approved of the transcript's accuracy prior to analyzing (Kvale & Brinkmann, 2009)

STEP 5: Analyzing: logic of interpretations are sound

Strategies

Cohorts of six teams were interviewed in each round with a supervising professor assisting with initial analysis to ensure interpretation was logical, sound, and provide insights for each successive round of questioning (Merriam 2006, Morse, et al., 2002; Shenton, 2003).

Questions were modified or expanded to retain focus of the research questions (Morse, et al, 2002).

Data was analyzed through frequent debriefing sessions with supervising professor to discuss CLA and content analysis (Merriam, 2006; Shenton, 2003).

STEP 6: Validating: reflective judgment as to what is relevant, with an emphasis on validation throughout the stages of knowledge production

Strategies

The researcher kept an audit trail, detailing the methods, procedures, and key decision points of the study (Lincoln & Guba, 1985; Merriam, 2006).

The researcher used reflexivity, a working journal, and member checking to continually monitor the direction of the study and reduce researcher bias (Kvale & Brinkmann, 2009; Lincoln & Guba, 1985; Merriam, 2006).

The research design transparently described the position of the researcher in the study so the reader could follow the steps that lead to the study's conclusions (Lester, 1999; Merriam, 2006).

In order to reduce the researcher effect (responses changing due to the researcher being the developer of the S'cool Moves training program from which some participants were recruited), assurances were made to the participants that the focus of the study was collaborative relationships between the pairs and not the efficacy of using the S'cool Moves program. Interview questions included asking what programs the pairs used. All programs mentioned were reported, including S'cool Moves. The researcher strived to reduce any hegemonic influence the S'cool Moves program may have had with regards to participants' responses (Miles & Huberman, 2004).

STEP 7: Reporting: report provides a valid account of the main findings of the study; role of the readers of the report in validating the results

Strategies

The researcher and expert worked together to ensure the main findings of the study represented the voices of the participants of the study and provided rich descriptions to contextualize the study so readers were able to determine the extent to which their situations matched the research context (Lincoln & Guba, 1985; Merriam, 2006)

Phase 2, the evaluation survey, served to confirm findings of Phase 1 and determine the extent to which the research findings were adequately translated and integrated into practice through the revised training framework.

Source: (Summarized from Kvale & Brinkmann, 2009, pp. 248-249)

A strategy not discussed in the above table is triangulation. Triangulation is the use of multiple methods, investigators, sources, and theories to strengthen the validity of a study (Merriam, 2006). While some authors like Shenton (2004) and Merriam (2006) consider triangulation a hallmark of good qualitative research design, according to Onwuegbuzie and Daniel (2003, p. 9), triangulation may actually lead to "convergence, inconsistency, and contradiction."

The study sought to maintain consistency by having a single researcher who was familiar with the culture of the organizations the participants represented. The research design did, within the constraints of time and resource constraints, include both qualitative and quantitative methodologies. It is acknowledged that the quantitative method was only confirmatory and descriptive in nature. Training evaluation surveys were distributed and assessed as part of measuring the efficacy and perceptions of trainees to the S'cool Moves training program. This did allow for triangulation to be determined in regards to the usage of the CLA approach in the training program, the inclusion of thematic findings, and aspects of the revised training program related to collaborative practice.

A further aspect of triangulation was achieved through the use of a research supervisor who assisted with the overall research design, data analysis, and results interpretation through CLA. In addition, the researcher collaborated with a Touro College research team in New York City, New York, to design a survey for S'cool Moves newsletter recipients in order to gather quantitative information about collaboration between occupational therapists and teachers. The purpose of the study is adequately achieved using the qualitative data and the contributions made to the design of the S'cool Moves training program and subsequent confirmatory quantitative data. However, the researcher wishes to note that further quantitative data measuring the dimensions and associated variables of collaboration between teachers and occupational therapists will be collected in a separate study conducted in

association with Touro College. Suggested future research proposed by this study includes the need to conduct a comparative analysis between a scale-based quantitative survey and the qualitative data of this study. Combining the results of this qualitative study with the results of the Touro College quantitative study is justified and encouraged by the pragmatist paradigm, in hopes of providing more information to answer the research questions posed (Creswell, 2009).

3.4.2 Reliability of the study

The validity of the study was strengthened using Kvale and Brinkmann's (2009) seven-step framework directly related to the interview as method. According to Lincoln and Guba (1985), without validity there is no reliability. However, from a positivist perspective, no qualitative study is reliable to the extent that its results are consistent over time and the research findings can be replicated and yields the same results (Golafshani, 2003; Merriam, 2009). According to Kvale and Brinkmann (2009, p. 245), "reliability pertains to the consistency and trustworthiness of research finding; it is often treated in relation to the issue of whether a finding is reproducible at other times and by other researchers." Expanding the definition of reliability to include transferability broadens the scope of defining a study as reliable within the context of qualitative research.

Regardless of the many authors who have contributed in a myriad of ways to redefine reliability within a qualitative approach, this study is limited in its reliability because a phenomenological study using the interview as method by its very nature is transformational and ideally would not be repeatable or yield exactly the same results by other researchers. The researcher's role in phenomenological studies is to describe the experience of the participants from their personal perspectives and interpretations (Lester, 1999). Ultimately, despite the researcher being as invisible as possible in the process, the researcher remains an "interested and subjective actor rather than a detached and impartial observer" (Lester, 1999, p. 1). To limit subjectivity and increase objectivity, the researcher posed questions that avoided pre-determined thematic assumptions but rather formulated them according to the CLA framework, which added structure rather than assumed themes to the questions. (Seidman, 2006).

According to Miles and Huberman (2004), this study may bear some reliable features, in that the research questions were clear and the study design was congruent with the questions asked within the theoretical underpinnings of the research design. The researcher's role was explicitly defined within the research design for readers of the study. Data collected represented an appropriate number of respondents within the context of the study. An expert, Dr. van der Laan, was involved throughout all stages of the study and checked the quality of the work. Throughout the study, member checking assisted the researcher in reducing bias and clarifying negative evidence or rival explanations (Kvale & Brinkmann, 2009). To the extent that reliability in qualitative research expands to encompass the concept of dependability, this study may be seen as dependable based on the steps taken by the researcher throughout the study. However, the rigorous exploration of the phenomenon of collaboration was completed within the context of evolution.

Collaborative practice within a general education classroom is a transitional, unfolding, and evolving phenomenon; as such, there is no imperative for reliability in its strictest sense. Utilizing a mixed methods sequential design that included employing Phase 2, the evaluation survey, capitalizes on the strengths of quantitative and qualitative research by embracing methodological pluralism (Tillman, Clemence, & Stevens, 2011) The complimentary positioning of Phase 1 as the dominant status in the study and Phase 2 to confirm the process of integrating the scientific knowledge from Phase 1 into the revised training framework, may enhance the dependability of this study through a research design that effectively answered the research questions (Leech & Onwuegbuzie, 2009). Research that follows this project will continue this evolution, hopefully due in part to the contributions of this study to the current body of knowledge.

3.5 SAMPLING (PHASE 1)

Once researchers determine the focus of their studies and methodological design, the process of sampling begins. The sampling strategy used depends on the research design. Demonstrating the sampling strategy and rationale underpinning the sampling process is an important step in discussions regarding characteristics of research rigor of studies as discussed earlier in this chapter (Merriam, 2009).

3.5.1   Sampling strategy

The study focused on the collaborative relationships between occupational therapists and general education teachers working together within an RTI framework. Of primary interest was how the pairs described their relationships, perceived their roles within the collaboration relationship, what assumptions they brought to their relationships, and how the pairs abstractly assessed their relationships using myths and metaphors.

Occupational therapists and general education teachers have defined roles in the educational setting, as was discussed in Chapter 2. As such, the sampling process was clear as to who would meet the criteria of an occupational therapist and a general education teacher. The need for the therapists and teachers to be working within an RTI framework was an additional sampling criterion.

The sampling strategies included steps of the sampling process, sampling frame, selection of sampling technique, sample size, and limitation of the sampling process. A full discussion follows.

3.5.2   Steps of the sampling process

Criteria for selection from the existing and constructed sample frames were as follows:

   a) general education teacher (including reading specialists working within the general education classroom) and occupational therapist (including Certified Occupational Therapy Assistants) working in a public school in the United States in urban, suburban, or rural settings
   b) teams selected based on regions in the United States that provide a broad sample from diverse areas (northern states, southern states, mid-western states, eastern states, and western states)
   c) general education teacher and occupational therapist working in grades K-5
   d) public schools having an evolving or finalized RTI framework
   e) public schools with an occupational therapist working in a general education classroom with fifteen or more students

f) general education teachers and occupational therapists actively collaborating within RTI framework guidelines, and

g) occupational therapist was a contract or district employee.

The teams were recruited from collaboration workshops designed by S'cool Moves, Inc. Permission was granted from S'cool Moves, Inc. to recruit participants for this project. The occupational therapist and general education teacher from each team were volunteers who agreed to be interviewed.

3.5.2.1 Sampling frame

Sample frame refers to a "list or grouping of people from which the sample is selected" (Salmons, 2012). For online interviews, studies may use an existing sample frame or one that is constructed or generated when an existing frame is not available. Existing frames are previously constructed frames usually available through membership lists or associations. Constructed or generated sample frames are used when an existing frame or list is unavailable. Potential participants are recruited by approaching individuals within an organization, location, workshop, or other venue (Salmons, 2012).

For this study, a combination of an existing sample frame and a constructed sample frame was used to recruit potential participants. Individuals were approached at workshops and recruited through an online newsletter. At workshops, participants were given an index card with the prompt, "If you are part of an occupational therapist and general education pair experiencing success with collaboration, you are invited to participate in a study using interviews as a way to collect data." Participants chose whether or not to put their names on the cards provided for them. Cards were gathered from eight workshops and held until it was time to move forward with selection. The selection frame consisted of workshop participants who had completed index cards at workshops and newsletter recipients who responded to the recruitment email.

3.5.2.2 Selection of the sampling technique

There are two basic types of sampling: probability and nonprobability. According to Merriam (2009), probability sampling most frequently takes the form of simple random sampling. The

benefit of probability sampling is that outcomes may be generalized from the sample population to a larger population.

Non-probability purposeful sampling is the most common form of sampling in qualitative studies based on the assumption that the researcher wants to "discover, understand, and gain insight and therefore must select a sample from which the most can be learned" (Merriam, 2009, p. 77). Purposeful sampling is best used when "participant selection is dependent on the participant's abilities to provide information required to learn about the phenomenon" (Salmons, 2012, p. 261).

The sampling process used for this study was typical purposeful sampling. Typical purposeful sampling aligned with the empirical and theoretical purposes of the research. Participants chosen were experienced, knowledgeable, and offered diverse perspectives on the subject of collaboration (Salmons, 2010). The participants reflected the typical profile of teachers and therapists experiencing the phenomenon being studied.

3.5.2.3 Sample size

When determining sample size of a qualitative study, several factors need to be considered, including the size needed to answer the research questions, how the data will be gathered, how the data will be analyzed, and the resources available to the researcher (Merriam, 2009). According to Kvale and Brinkmann (2009), the number of interviews in a given study tends to hover around fifteen, with a variability of plus or minus ten. The authors go on to state that there is a law of diminishing returns, whereby at a certain point adding more respondents yields less new knowledge.

An analysis found that most qualitative studies had lower numbers of participants than recommended to receive saturation of data (Mason, 2010). All the phenomenological studies identified in the research had at least six participants and over two thirds (68%) fell within Creswell's (2009) recommended five to twenty-five participants. Given these considerations, the researcher chose to interview a higher amount than recommended in order to attempt saturation of the data. Eighteen teams (for a total of thirty-six participants) were selected from the sample frame.

During the recruitment phase, the researcher collected index cards from workshops and emails from the newsletter solicitation. Eighteen teams met the criteria and were willing to complete the voluntary interview process.

3.5.3 Limitations of the sampling strategy

Purposeful sampling attempts to select participants according to criteria determined by the research purpose (Tuckett, 2004). As such, the sampling strategy has three key limitations: limits to the sample, gatekeeper bias, and sample frame bias.

3.5.3.1 Limits to the sample

The sample was limited to individuals who attended S'cool Moves workshops and/or received online S'cool Moves newsletters, as determined by the selection criteria. In addition, all respondents were female, thus limiting the insights that may have been gained from including males in the study. Collaboration between pairs ranged between one and four years, with ten pairs collaborating for one year only. Limiting the sample excluded the voices of others outside the sample frame, making the information gained from the study applicable only to those closely aligned with the selection criteria or those who relate to the participants' situations.

3.5.3.2 Gatekeeper bias

The researcher determined the selection criteria, chose the participants for the study, and controlled the sampling process. As such, the researcher occupies the role of gatekeeper, allowing or denying access based on the selection criteria. Those who may have wanted to participate in the study may have been denied due to the sampling criteria. For instance, physical therapists expressed their disappointment during workshops that they were not invited to participate in the study, despite the fact that they were involved in successful collaborative relationships with other teachers.

3.5.3.3 Sample frame bias

The sample was framed according the aims of the study. Those sampled were limited to the recruitment process of the existing and generated sample frames. A great percentage of

participants at workshops and recipients of the newsletter are females working with grades K-5. The teams who participated in the interviews reflect this bias. As gender was not explicitly taken into account, it thus became an "invisible issue" and yet it remains of importance.

These limitations are important to address in keeping with a qualitative, phenomenological study where the research design is presented in a way that creates transparency and ultimately increases the trustworthiness of the study (Merriam, 2009).

3.6 SAMPLING STRATEGY (PHASE 2)

Due to an in-depth discussion regarding sampling strategy discussed in Phase 1, this section provides the details of the sampling strategy used for the evaluation survey, thus limiting the redundancy of repeating initial background information discussed in section 3.5 of Phase 1.

3.6.1 Sampling strategy

For Phase 2, the sampling strategy included employing a non-probability typical purposeful sampling in order to collect data from surveys distributed at the end of training sessions where the revised training framework was implemented.

3.6.2 Steps of the sampling process

The sampling method adopted was purposeful nonprobability sampling. The parameters of the population were defined in terms of their participation in the training programs. While the completion of the survey was purposeful in that only trainees were invited to participate, the sample was nonprobable in that respondents could voluntarily participate and no set systematic sampling was adopted. Despite this, the majority of participants did respond increasing the validity of the findings.

All participants enrolled in scheduled training sessions between July through October, 2015, received an evaluation survey to complete at the end of the training sessions. Training sessions were not specifically designed to target any specific locations in the United States but served to be a representative sample. The evaluation survey respondents attended training

sessions that S'cool Moves had committed to prior and as such, the training sessions were part of the typical training schedule. This research project did not impact geographic locations or individuals attending the sessions.

3.6.2.1 Sampling frame

The sampling frame included all participants who completed the training sessions where the revised training framework was implemented. This included all school staff in attendance as those in attendance represented the typical stakeholders utilizing the S'cool Moves program. For the purpose of the interview sampling process, the frame was narrowed to represent only occupational therapists and general education teachers; however, in a typical school environment occupational therapists and general education teachers receive support from staff members representing many different disciplines including but not limited to counseling, behavioral health, paraprofessionals, speech, adaptive physical education, and autism specialists.

3.6.2.2 Selection of the sampling technique

In order to confirm that the revised training framework effectively integrated the research findings from Phase 1, participants who completed the revised training sessions were deemed to be the appropriate target audience to complete the evaluation survey. Due to the workshop participants being a typical representation of collaborative team members from school districts, they met the criteria for a typical, purposeful sample.

3.6.2.3 Sample size

It is generally recommended that the sample size for surveys be sufficiently large enough to represent major and minor sub-groups. For major sub-groups at least 100 cases are considered to be sufficient and for minor sub-groups between 20 and 50 cases (Somekh & Lewin, 2011). For this study, 387 surveys were completed by 402 attendees, (96.27% of surveys completed) and by generally recommended standards, is a sufficiently representative number (Somekh & Lewin, 2011).

3.6.3 Limitations of the sampling strategy

3.6.3.1 Limits to the sample

The sample included a broader cross section of members from disciplines beyond the Phase 1 sample of occupational therapists and general education teachers; however, both groups were well represented in the sample (greater than 100 cases). In addition, only those participants who had access to the training sessions completed the survey. There was not an equitable opportunity for attendance due to limited offerings in geographic areas. Attendance was based on district approval, geographic location, availability of funding from districts, and members' interests in attending.

3.6.3.2 Gatekeeper bias

Questions on the survey were asked to obtain information about specific aspects of the revised training program. The gatekeeper created the questions based on experience with evaluation tools used in former S'cool Moves trainings. The questions were biased toward finding out specific information the gatekeeper deemed important to this study.

3.6.3.3 Sample frame bias

All participants voluntarily attended the training session and in doing so had a general interest in learning theory and techniques presented in the S'cool Moves training program. This could bias the sample frame in that individuals less inclined toward learning about collaboration and S'cool Moves techniques may not have experienced the training sessions as positively as those who attended and desired to improve their collaborative practices.

3.7 INTERVIEW RESULTS (PHASE 1)

Eighteen teams completed the interview process. The chart below depicts the location of the teams, years in the profession, years collaborating with one another, and grade level where collaboration took place. Table 3.5 summarizes the descriptive coding or participant pairs participating in the interview process.

Table 3.5: Descriptive coding of participant pairs

Location of Teams	Number of Interviewees	Teacher: Years in Profession	Therapist: Years in Profession	Years Collaborating With One Another	Grade Level
Antioch, CA	1 therapist 1 teacher	38	16	4	K
Lakeway, TX	1 therapist 1 teacher	16	30	4	1st
Baker City, OR	1 therapist 1 teacher	7	33	1	2nd
Castle Rock, CO	1 therapist 1 teacher	15	19	2	3rd
Cheyenne, WY	1 therapist 1 teacher	6	30	3	3rd
Cheyenne, WY	1 therapist 1 teacher	10	4	1	K
Cincinnati, OH	1 therapist 1 teacher	26	44	1	1st
Cumberland, RI	1 therapist 1 teacher	22	5	2	1st
Dayton, OH	1 therapist 1 teacher	6	16	2	K
Fort Myers, FL	1 therapist 1 teacher	4	34	1	1st
Green Bay, WI	1 therapist 1 teacher	14	20	1	1st
Meridian, ID	1 therapist 1 teacher	7	13	1	2nd
New York City, NY	1 therapist	20	13	1	2nd

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	1 teacher				
New York City, NY	1 therapist 1 teacher	19	11	1	K
Oceanside, CA	1 therapist 1 teacher	8	14	1	K
Perkins, MI	1 therapist 1 teacher	26	22	2	3rd
Vancouver, WA	1 therapist 1 teacher	10	22	4	1st
Weiser, ID	1 therapist 1 teacher	18	17	1	K

Source: Developed for this research.

3.8 DATA ANALYSIS STRATEGY

An individual unfamiliar with the interviewees transcribed the digital data collected through the interviewing process. Attribute coding was used to detail the interview location and persons interviewed. The names on the interview transcripts were de-identified for the researcher. Upon completion of data analysis, all descriptions and insights gained did not include participants' names or school names.

A feedback loop was initiated with participants to ensure the integrity of the study was maintained. A typed transcript from the interview recording was emailed to each participant. Participants were asked to review and clarify data recorded and transcribed. It was stressed to the participants to simply clarify any acronyms or words that might have been typed in error. Participants were encouraged to make as few corrections to the actual dialogue as possible, unless in retrospect what was said was unintended or inaccurate. All participants made minimal changes to the their transcripts and provided only necessary changes in terms of misheard words or spelled-out acronyms unfamiliar to the researcher.

As interviews were completed and participants approved the accuracy of transcripts, the researcher began the process of analyzing data. Merriam (2009) recommends analyzing data

as the study unfolds, rather than waiting until the end of the study, when there is too much data to analyze at one time. In addition, reviewing transcripts and thinking reflexively about the interviews helped guide the researcher to ask questions in future interviews that broadened the scope of understanding, confirmed previous explanations, and lead to uncovering deeper meaning (Kvale & Brinkmann, 2009, Merriam, 2009).

According to Merriam (2009), the use of deductive reasoning and the use of inductive reasoning are the two approaches to analyzing data. The researcher who uses deductive reasoning uses a structure or predetermined framework to analyze data. This approach works well when the researcher is already aware of probable participant responses. The researcher examines data looking for specific responses, number of events, or type of incident being studied, for instance. The deductive process is used most commonly in positivist research requiring the testing of hypotheses. Using a deductive approach in qualitative research is inflexible, and may limit or bias theme or theory development (Burnard, Gill, Stewart, Treasure, & Chadwick, 2008).

An inductive approach uses actual data generated from observations, field study notes, interviews, or documents to create the structure or framework for analyzing data (Kvale & Brinkmann, 2009). The researcher brings to the analysis thoughts about the phenomenon that are informed by a theoretical framework and information uncovered during a literature review. The researcher may establish some prior knowledge, but ideally remains flexible and responsive to changing conditions and new information as the study progresses (Merriam, 2009). This approach is more time-consuming than using a deductive approach; however, time to analyze data is traded for the potential thoroughness of the analysis process and uncovering unexpected themes (Burnard et al., 2008). For this study, a deductive approach was deemed most appropriate in terms of the researcher bracketing and practicing Epoch throughout the study in order to remain open to uncovering unexpected and novel scientific knowledge.

3.8.1 Data analysis method: CLA and Content Analysis

Miles and Huberman (1994) state that phenomenologists do not use coding as a way to understand meaning and actions of the participants. However, Lester (1999) recommends

phenomenological researchers look across themes between participants by using a framework to analyze and identify relationships between different themes and factors. Seidman (2006 p. 125) states that the researcher who uses interviews as the data collection tool "searches for connecting threads and patterns among the excerpts within those categories and for connections between the various categories that might be called themes." Seidman (2006) cautions researchers not to force excerpts into categories preconceived from the researcher's perspective, but to remain vigilant that the categories are from the experiences of the participants and represent how the participants create meaning from their experiences. For this reason a framework that represents a structure of layered meaning that encourages the expression of variable responses was deemed most suitable. CLA therefore fulfilled two functions:

a) It served as a framework that informed the questions into vertical layers of depth of meaning thus avoiding leading questions based on the assumption of emerging themes.

b) It served to analyze the data by 'filtering' finalized themes from the content analysis into layered meaning.

3.8.1.1 Causal Layered Analysis

The questioning format during the interview process allowed for collection of data within the four layers of litany, systems, worldviews, and myth/metaphor. For analysis purposes, an Excel spreadsheet was created titled with each of the layer descriptors (see Appendix E). Teachers and therapist data were separated into individual groups with eighteen columns created to gather responses for each of the group. Initial analysis of interview transcripts included highlighting text in four different colors to represent corresponding layers. As each interview transcript was analyzed, responses that fit within each of the layers were categorized in the excel spreadsheet. When responses were similar or duplicated, a number of "1" was entered into the column and next to the response. After all transcripts were analyzed, recorded, and compiled in the excel spreadsheet, the researcher referred to the learning journal kept during the interview process to ensure salient comments from the interviewees

were represented in the spreadsheet. Once all data were entered, content analysis began within each of the four layers.

Figure 3.12: Summative illustration of data analysis method, initial layering process
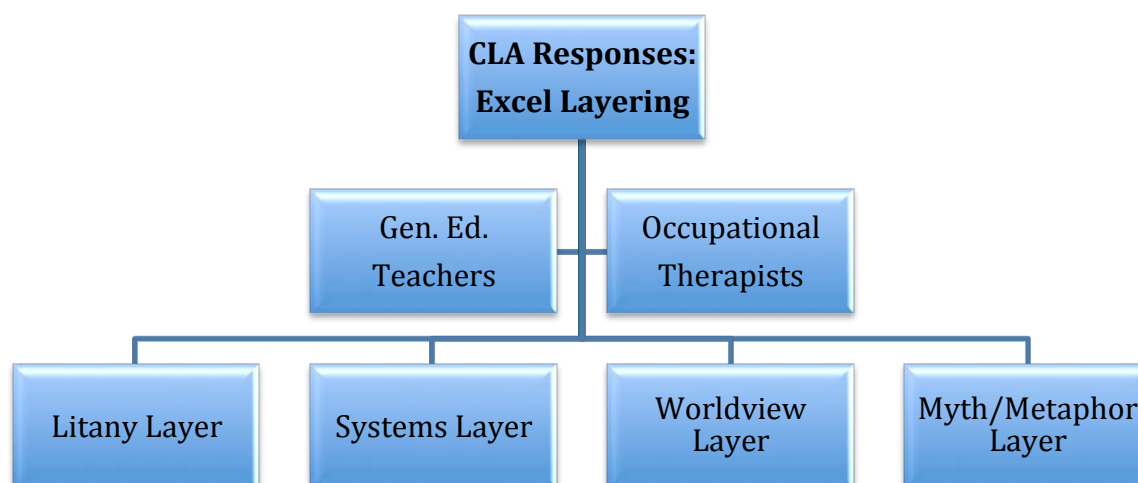
Source: Developed for this research.

3.8.1.2 Content Analysis

The terms of "category" or "theme" are used interchangeably in much of the literature. For the purpose of this study, the term "theme" is used to describe grouping the spreadsheet information into meaningful units of data within the four layers. For this study, data was organized using themes to identify relationships and factors needed to deepen the understanding of the data within the layers. Within each of the four layers, themes emerged. Analysis initially focused on responses that received the most number ones across the eighteen columns, representing responses sharing commonality with other interview transcripts.

Through the use of reflexive thinking, the researcher created themes that were responsive to the research questions (Merriam, 2009). After themes were generated based on their responsiveness to the research questions, the data analysis strategy was both horizontal in terms of themes and vertical in terms of layering of meaning. Figure 3.11 provides an illustration of content analysis within the four layers.

Figure 3.13: Illustration of content analysis

LITANY LAYER	SYSTEMS LAYER	WORLDVIEW LAYER	MYTH AND METAPHOR LAYER

Content Analysis: Themes within layers

Source: Developed for this research.

3.8.2 Limitations

Although the research was based on an exploratory mixed methods design, the predominant emphasis of the research was qualitative. In the adoption of a qualitative, phenomenological study as Phase 1 of the study, the principle investigator is the researcher who collects data and analysis data. The researcher as the primary instrument has shortcomings. Identifying, monitoring, and discussing how biases may have impacted data collection and data analysis is regarded as ways to improve the limitations of studies (Merriam, 2009). The analysis of qualitative data involves interpreting data by the researcher who has acknowledged prior knowledge on the subject and discussed previously steps taken to limit bias. The researcher, through the teaming of expert support, has made every attempt to limit bias but the study is prone to the "observer effect."

The Association for Qualitative Research (2014) defines the observer effect as the

> "difference that is made to an activity or a person by it being observed. People may well not behave in their usual manner whilst aware of being watched, or when being interviewed while carrying out an activity. Many forms of research involve similar problems and allowing for these in interpretation is a key professional skill for researchers." (http://www.aqr.org.uk/glossary/?term=observereffect).

Participants in the study knew the researcher through their participation in workshops facilitated by the researcher and could be prone to the observer effect. As discussed earlier, at the start of each interview, the researcher discussed the focus of the study and reiterated that

this was not a study focused on S'cool Moves, a program designed by the researcher. The participants were told that the focus of the study was to understand the phenomenon of collaboration between teachers and therapists. By providing straight- forward information about the focus of the study, participants were free to express their experiences through their own perspectives while the researcher listened and practiced the technique of Epoche, as discussed earlier in this chapter.

The observer effect is sometimes referred to as "researcher effects", "reactivity', or the Hawthorn effect" (Monahan & Fisher, 2010). In defense of the criticism that qualitative research is prone to the observer effect, Monahan and Fisher (2010, p. 359) state that, "All knowledge is contingent on the interests of the scientists creating it, the tools and procedures they use to measure the phenomena under investigation, and the analytic frameworks they use to interpret their results." Through a phenomenological perspective, knowledge is not something that is outside those who possess it. Through the interaction with the researcher, meaning and robust data are created through developing trust and ties with others rather than observing from a distance (Monahan & Fisher, 2010). All this being said, the observer effect, even though defended, could still be viewed as a limitation to the study. By teaming this study with the survey research project from researchers at Touro College, and as such to mix methods, does not reduce the limitation of this study but is assured to strengthen the knowledge base in the future.

An additional limitation of the study is the use of typical purposeful sampling. While this was defended earlier, it remains a limitation in that the study can only be transferred or generalized in so much as those reading the study relate to the findings, trust the audit trail, find the researcher trustworthy, and view the research as supporting or enhancing previous theory generated from the fields of occupational therapy and education (Kvale & Brinkmann, 2009, Merriam 2009, Miles & Huberman, 1994, Seidman, 2006).

3.9 SURVEY RESULTS (PHASE 2)

An evaluation survey was administered to participants in the revised S'cool Moves training workshops based on the findings in Phase 1 of the research design. Phase 2 of the design was

to evaluate, quantitatively, participants' perceptions of the training program and the inclusion of new techniques and insights from the findings in Phase 1.

A summary and number of responses are listed in Table 3.6 below. Chapter 5 expands upon the data and analysis associated with the piloted delivery of the S'cool Moves training program informed by and designed based on the insights of this research.

Table 3.6: Locations of workshops and evaluations completed

LOCATION	EVALUATIONS COMPLETED
Bozeman, MT	27
Valley Park, MO	26
Green River, WY	13
Salt Lake City, UT	22
Apple Valley, CA	57
Vancouver, WA	24
Great Falls, MT	55
Clinton, MI	96
Lebanon, OH	67
TOTAL SITES: 9	**387**

Source: Developed for this research.

3.9.1 Data Analysis

The data from the completed surveys were captured and stored online using survey software and database (QuestionPro[TM]). The raw data were exported using MS Excel.

3.9.1.1 Data coding

Coding was fulfilled by assigning a code to each response as aligned to each question in the survey (Malhotra, 2007). The survey questionnaire consisted of closed pre-coded questions. Case responses were automatically coded by the online survey software as data from the surveys were inputted from the hardcopy survey questionnaires.

The raw data was edited after the data was inputted. The editing functioned served as a quality screen that ensured that all data was complete, free of inconsistencies, accurate and reflective of the hardcopy responses (Malhotra, 2007; Neumann, 2006).

3.9.1.2 Cleaning and screening

The purpose of following the cleaning and screening process is to ensure that the data has been transcribed correctly by identifying outliers, missing data and inconsistent responses (Malhotra, 2007). As the survey was constructed in the form of an evaluation instrument related to participant perceptions of training, it did not represent a complex construct associated with advanced data analysis. The instrument was designed to only provide descriptive statistics associated with participant responses. As such, the impact of data normality and distribution on the analysis of data is negligible. That said, data cleaning and screening was conducted to replace missing value and identify abnormal cases for exclusion from the descriptive statistical analysis.

An advantage of the online administration of survey questionnaires is that data inputting errors are largely avoided (Creswell, 2009). Respondents' answers were automatically assigned and recorded in the online data base according to the coded variables. The data was then downloaded from the online data base into a MS Excel file format.

Two categories of problems were considered: case-related problems such as missing values and outliers, and problems related to distribution such as normality and linearity (Hair, Black, Babin, Anderson, & Tatham, 2006). In terms of case related problems, data was checked for accuracy and to ensure that missing values were treated appropriately. The data was checked onscreen by the researcher also checking frequencies for every variable, checking outlying

data and missing values. In terms of problems related to distribution, descriptive statistics techniques and frequency distributions of each variable were used.

3.9.1.3 Missing data

The online survey software included the feature of returning the person inputting data to incorrectly or non-completed questions. As such, the occurrence of missing data was minimal. However, SPSS data analysis software was used to check for missing values. A missing values analysis was conducting illustrating that 26 missing values for the whole dataset was detected occurring only in 13 of the 387 cases. This equates to 0.67% of the total data. Imputation of the missing values is the most logical remedy to be applied in the event of missing data (Hair, et al., 2006). There is no need to model the missing data in terms of ignorable missing data as part of the evaluation process (Allison, 2002). However, values were replaced utilizing series means in order to ensure that the study would retain these cases for the analysis.

3.9.1.4 Outliers

SPSS data analysis software was used to identify any outliers in the data. Outliers are defined as observations that are distinctly different from other observations in the data set (Hair, et. al., 2006). The impact of outliers can be negative or positive and should be viewed within the context of the analysis. The information they provide may be of benefit or are not representative of the population presenting the possibility of distorting the statistical analysis (Hair, et. al., 2006). Some cases of this study showed the presence of outliers.

All items that will be included in the structural model analysis were screened for univariate outliers, which were defined as responses greater than 3.29 standard deviations from the mean (Tabachnick & Fidell, 2007). No univariate outliers were identified from the cases.

3.9.1.5 Normality

Many inferential statistical techniques require an assumption of the normality of the data (Coakes, Steed, & Price, 2008). This was a consideration as normality of the data is required when conducting all statistical analysis. Testing the data for normality was conducted and

included consideration of graphical depictions (box-plots, stem and leaf plots, histograms) and frequencies.

Kline (2005) recommends examining and correcting for violations of univariate normality before screening for multivariate normality. The criteria for univariate normality utilized in this study were Skewness between -2.0 and 2.0 and Kurtosis between -7.0 and 7.0 (Kline, 2005). According to these standard criteria, all items were sufficiently normally distributed.

On the basis of the univariate and multivariate tests of normality discussed, most of the variables used in the model were moderately non-normal (Finch & MacKinnion, 1997; Finch, West, & MacKinnion, 1997).

3.9.1.6 Summary

The process of data cleaning ensured that the data was accurately representative of the observations. It further applied the population parameters to ensure that the data retained was reflective of the population being studied.

Data screening identified and addressed aspects of missing data, outliers and non-normality related to the data. Due to the online survey capturing and administration, missing data was negligible. Outlier and non-normality violations were examined and addressed within the context of accepted criteria although these were negligible.

The descriptive statistics and discussion of findings are presented in Chapter 5.

3.10 ETHICAL CONSIDERATIONS

Ethical issues are imbedded within the epistemological approach of the research design. From a pragmatic approach, ethical issues are viewed in terms of how actions relate to their specific consequence or benefits for those to whom the research may affect (Miles & Huberman, 1994).

The research was guided by the ethical principles of beneficence, respect, and justice for those involved in the study as recommended by Sieber (1992), as cited in Miles and

Huberman, (1994). Table 3.7 lists specific ethical considerations and how the study addressed each one.

Table 3.7: Ethical considerations addressed in the study

Worthiness of project	Is the study worth doing, and is it aligned with values important to the researcher?	Literature review to assess worthiness of project; peer discussions regarding value of project
Competence boundaries	Does the research and colleagues have the expertise to carry out the study?	Researcher teaches courses on the subject and consults on the topic
Informed consent	Have those involved been provided with full disclosure regarding the scope and aims of the study?	All participants signed a consent form highlighting the scope and aims of the study.
Benefits, costs, and reciprocity	What will participants gain from being part of the study, giving of their time, and is it worth it to them?	All participants were told that they would be provided with results of the study by way of a webinar in order to help improve practice and share outcomes for the betterment of all involved in the study.
Harm and risk	Will any harm come to those who participated?	The study's focus was on beneficial practices with no risk to participants.
Honesty and trust	Is the researcher being honest with the participants	The researcher was a respected member of the

	in terms of their relationship and trust for one another?	community and trusted by those involved in the research.
Privacy, confidentiality, and anonymity	How will the study guard privacy and ensure participants were unidentified?	All information was kept safe through methods approved from the USQ Ethics Board.
Intervention and advocacy	Is the researcher involved in harmful behavior involving advocating for others not within the original intent of the study?	The researcher was transparent with no hidden agenda for any other group outside the scope of the study.
Research integrity and quality	Is the study being conducted carefully and designed within an epistemological scope that is defined and explained?	The researcher has given careful consideration to the epistemological underpinnings of the research design.
Ownership of data and conclusions	Who owns transcripts, controls data, and is responsible for diffusion of study results?	The researcher remained in control of data and was not funded by an organization. Diffusion is the responsibility of the researcher.
Use and misuse of results	What is the researchers responsibility in ensuring that the findings are used appropriately and with beneficence?	The researcher took responsibility to assure the results were shared in a way that benefitted those involved in the study and did no harm.

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Conflicts, dilemmas, and trade-offs	How are dilemmas or conflicts handled when participants' comments could be traced to a particular person, school, or identifiable situation?	The researcher's content analysis of the data was carefully constructed to ensure no person, school, or specific situation could be identified.

Source: (Summarized from Miles & Huberman, 1994, pp. 290-296)

3.10.1 Ethical protocol related to power issues

An additional concern when addressing ethics issues is that of power. The issues of power needed to be addressed and carefully considered because the participants were chosen from courses that the researcher taught or from a website that the researcher owned. Interviewees could have felt obligated to say what they thought the researcher wanted to hear and power could easily lean to the side of the interviewer. The researcher kept a learning journal, sometimes called a work journal, to keep track of the researcher's journey, insights, and potential bias that could impact the interviews.

According to Kvale and Brinkmann (2009), the research interview is not an open conversation between equal partners. Table 3.8 highlights asymmetry of power in qualitative research interviews.

Table 3.8: Asymmetry of power in qualitative research interviews

Interviewer maintains control	Initiates and defines the interview situation, determines interview topic, poses questions, decides on which answers to follow-up, and terminates the conversation
One-way dialogue	Interviewer asks, interviewee answers

Dialogue is instrumental to interviewers Goals	Conversation is a means for providing the researcher with descriptions, narratives, texts to interpret and report according to research interests
The interview may be a manipulative dialogue or has a monopoly on interpretation	A hidden agenda may be present without the interviewee knowing what the interviewer is after or how the information may be interpreted

Source: (Summarized from Kvale & Brinkmann, 2009)

Each step of the interviewing process poses potential threats to power equality. An ethical protocol was considered for each step of the interview process based on Kvale and Brinkmann's (2009) seven-step framework as highlighted in Table 3.9.

Table 3.9: Researcher's ethical considerations of power issues

Stages	Ethical consideration of issue
Thematizing: formulation of the research questions and theoretical clarification of the theme investigated	Questions asked were to further understand the phenomenon for the human situation and make a positive contribution to the fields of education and occupational therapy
Designing: planning for the interview	Consent forms were emailed and signed highlighting the aims of the study, anonymity, confidentiality, opt out options without recourse, and university ethic's board contact information
Interview situation	Kept track of time and encouraged interviewees to let researcher know if there were any time constraints, allowed for phone interview if there was any discomfort or challenges with online

	format, restated aims of study, and position of researcher in the study
Transcription	Typed by other than researcher, sent to interviewee for accuracy and clarification if needed; audio recorder and transcripts kept in secure area, reassured of anonymity regarding names and schools when concerns came up
Analysis	Teamed with expert who oversaw the analysis portion of the project
Verification	Reliability and validity addressed
Reporting	Data used only for purposes mentioned in the study and not to marginalize any group or individual; no hidden agenda

Source: (Summarized from Kvale & Brinkmann, 2009)

Participants were asked to choose the location for the interview that ensured comfort, privacy, and safety. Each participant was interviewed separately and not as a team so they would feel free to express their thoughts unencumbered by another person being part of the conversation.

The interviews were scheduled for one hour in length with allowances made for those participants who needed extra time to answer the questions to their own satisfaction. An interview protocol determined the semi-structured questions as well ethical safeguards and assurances. Participants signed a consent form indicating their willingness to be interviewed and recorded. Participants could opt out at any point without consequence. The interviews were gathered for a period of ten months.

In order to minimize the power relationship between interviewer and interviewee, the researcher promoted a sense of collaboration in a shared task with full disclosure regarding the aims of the study and affirmation of no hidden agenda (Salmons, 2010). Participants were

eager to receive the final report and gain the collective knowledge of all those who participated in the study.

For Phase 2, inviting workshop participants to complete evaluation surveys at the conclusion of training sessions reduced the power relationship in that respondents were able to provide feedback voluntarily, anonymously and within a safe environment.

3.10.2 Research approval

The University of Southern Queensland Human Ethics Committee approved the research. When necessary the study was approved by school district ethics boards, as was the case for New York City Department of Education (NYC DOE) (Appendix F). The researcher had to complete a course in research ethics prior to approval from the NYC DOE.

The researcher submitted a research approval application for the Anchorage, Alaska school district but was declined due to an administrative commitment to the teachers to limit any obligations not specifically related to their job descriptions. No other school districts required specific approval for the interviews.

3.10.3 Data protection

Data protection followed guidelines of the Principles of Fair Information Processing Online as defined by Mann and Stewart (2000). These guidelines included personal data being collected for one specific purpose, participants having access to the data collected through a review of their interview transcripts, personal data being guarded against unauthorized access or disclosure through safekeeping, data collected in the context of free speech, and data not being communicated externally without the consent of the participant who supplied the data (Salmons, 2010).

In summation, the researcher seriously addressed important ethical issues related to the study. The researcher abided by virtue ethics whereby all participants were treated with fairness, integrity, respectfulness, and benevolence (Salmons, 2010).

3.11 CONCLUSION

Based on the current academic articles focusing on research techniques, it appears that all those involved in research are on a continual learning path as the field of research morphs and evolves. This project embarked on a worthwhile journey using an emerging research method that may not only transform the individuals and organizations to which the research was directed but also contribute to expanding research design in the learning sciences using Causal Layered Analysis. The research design was complimented by the inclusion of a quantitative method to evaluate the efficacy of the S'cool Moves training program as revised based on the feedback from the Phase 1 research results. The next chapter moves beyond methodology to an in-depth discussion regarding data analysis results as related to the research questions posed earlier in this chapter.

CHAPTER 4

RESULTS AND INTERPRETATION (INTERVIEWS)

4.1 INTRODUCTION

This chapter highlights the results from the interviewing process, interpretation of the data, discussion of results, and answers to the research questions. After reviewing the data, the researcher chose to organize the results into the four CLA layered meanings in order to analyze the findings: litany, systemic, worldview, and myth/metaphor (Inayatullah, 2014). Emerging themes as identified in the content analysis were included in the organization of results according to the CLA framework. Each of the four layers includes a discussion of findings within the layer (including themes), interpretation, and summary. The literature supports the use of CLA methodology as summarized below:

> Causal Layered Analysis (CLA) is a theory of knowledge and a methodology for
> creating more effective policies and strategies. Since its invention in the late 1980s,
> it has been used successfully with governments, corporations, international think
> tanks, communities, and cities around the world. It has also been used as the
> primary research method for dozens of doctoral and master's students around the
> world (Inayatullah, 2014).

This chapter summarizes the research findings and demonstrates the potential for CLA to provide explanations and deep insights as to how general education teachers and occupational therapists develop successful relationships working together in classroom settings. CLA also provides a framework for recognizing transformational spaces within the different layered meanings and provides deeper insights as to how meaningful and sustained intervention can transform practice. It is strongly embedded in the notion of democratic participation of stakeholders to achieve meaningful change (van der Laan, 2014).

In keeping with the phenomenological research design, analyzing and interpreting the data requires the researcher to bracket preconceived ideas and become an observer – one who attempts to understand the teachers' and therapists' lived experiences (and the contextual nature of those experiences) in order to establish patterns and uncover meaning in their relationships (Moustakas, 1994, as cited in Creswell, 2009).

4.2 INTERVIEW DATA

Gathering of interview data began in September of 2013 and concluded in June of 2014. The interviews consisted of eighteen pairs of respondents, with one occupational therapist and one general education teacher comprising each pair. Though males and females received equal invitation to participate in the study, all of the interview respondents were female, possibly due to the larger percentage of females in both professions. Separate interviews with individuals from each pair lasted between forty-five and ninety minutes depending on the length of interviewees' responses, and were conducted using the GoToMeeting™ online platform.

Refer to Table 3.5 for descriptive coding of participant pairs highlighting the locations of the pairs, number of interviewees for each location, years in the profession, and years collaborating with one another.

The interview format consisted of semi-structured questions as they related to the CLA framework and methodology, which are litany, systems, worldviews, and myth/metaphor. Inayatullah (2014) explains CLA layers as follows:

> CLA works at a number of layers, delving deeper than the litany, the headline, or a data layer of reality to reach a systemic layer understanding of the causes for the litany. Below that layer, CLA goes still further, searching for worldview or stakeholder views on issues. Finally, it unpacks the deepest metaphor layers of reality. Each subsequent layer below reveals a deeper cause. (Inayatullah, 2014, http://www.wfs.org/futurist/january-february-2014-vol-48-no-1/causal-layered-anaylsis-defined).

Utilizing CLA methodology offers potential for providing rich, deep description of the collaborative experiences between occupational therapists and general education teachers, leading to understanding the phenomenological nature of the pairs' relationships from the surface layer (litany) through the underlying layers.

4.3 QUALITATIVE ANALYSIS AND INTERPRETATION

The discussion unfolds through analyzing data within the four CLA framework layers: litany, systems, worldviews, and myth/metaphor. Initially, the data is unpacked at each layer by presenting the layers independently of one another, beginning at the surface layer and moving down through the layers. After interpreting data within each layer, the researcher looks for evidence as to how the deeper layers contribute to responses found in the layer above until reaching the surface layer. The researcher also conducts content analysis in parallel to the CLA analysis to identify emerging themes.

4.3.1 Litany layer

The litany layer provides a description of what is observable; at this layer, respondents share comments regarding surface ('headline') matters. Metaphorically, the litany layer can be described in reference to an iceberg: a large, floating and frozen mass that is partly viewable above the surface of the water. Yet, what 'floats' the iceberg extends far below the surface and to a far greater extent than what is viewable; the litany layer is the part of the iceberg one can see from a ship, but does not include what lies underwater, or that which gives rise to it.

It is important to note that while the CLA framework differentiates between 'layers' of causality, it recognizes that the layers are dynamically interrelated creating areas of 'overlap' or 'fuzzy' areas. It does not suggest fixed boundaries or equation type causality but rather recognizes that complex cognitive processes evolve from deeply held personal narratives which causally inform assumptions, the systems created to deal with issues and ultimately the manifestations of these thought processes into that which observable *'above the water'*.

4.3.1.1 Litany layer: Results

Table 4.1 lists and summarizes responses from the interviewees that can be classified within the litany layer.

Table 4.1: Responses within the litany layer

Occupational Therapists' Responses	General Education Teachers' Responses
DEFINITION OF COLLABORATION	**DEFINITION OF COLLABORATION**
A team working together and supporting one another while bringing their skills, knowledge, and expertise to meet the needs of all students, staff, and volunteers for the best educational outcomes.	Working alongside one another, building off each other, sharing ideas, and respecting one another's points of view to provide the best learning experience and create something new through the gift of the relationship.
DISCUSSION	**DISCUSSION**
Drivers for Collaboration • Therapist observed struggling students or frustrated teachers while on school campuses • Teachers asked for help and made their needs known • An influential staff member (administrative) recommended OT help for the teacher—usually centering around behavior, organization, or developmental issues	**Drivers for Collaboration** • Teachers stressed over mandates such as Ohio's "Third Grade Guarantee", Common Core State Standards (CCSS), students falling behind, and increased prevalence of behaviors associated with Attention Deficit Hyperactivity Disorder (ADHD) or dyslexia • No other adults to help in the classroom
Successful Collaboration • Therapists observed teachers doing the activities on their own without therapist intervention • Therapists observed students doing activities on their own	**Successful Collaboration** • Students used activities independently • Students led the activities on their own • Teachers observed increased focus and attention during academics

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• Activities were part of the school culture • Therapists received positive feedback from students, teachers, and/or administration in terms of improved focus, organization, or academic skills	• Activities helped fill developmental gaps • Improvement in reading and writing skills • Activities fit easily into schedule • Activities were easy to implement • Instantly useable—no gadgets, equipment to monitor, or stuff to put together
Scheduling • Varied from scheduled to drop-in, with some teachers needing more structure than others • Teachers dropped in on therapists to ask questions, seek advice, or share ideas • Lessons were taught together with no specific plan or model (i.e. co-teaching) • Teachers remained in their classrooms to learn with the therapists • Length of lessons varied from fifteen to thirty minutes, one time per week to one time per month	**Scheduling** • Teachers created open invitations for therapists to drop in as their schedules allowed as follow-up to scheduled teaching times • Teachers appreciated drop-ins from therapists when they did "kid-watching" and helped them solve problems • Teachers followed the lead of the therapist with no particular plan or model used during lessons • Length of lessons varied from fifteen to thirty minutes, one time per week to one time per month
Data Collection • Data collection ranged from formal to informal with the majority citing a process similar to an action research cycle, though not naming it as such • Therapists took the lead on data collection when their supervisors insisted data was necessary; otherwise they opted out of data collection due to teachers being resistant	**Data Collection** • Data collection ranged from formal to informal, with a consensus that collaboration was "fun because I didn't have to do assessing—one more thing on my plate" • Teachers recommended that data collection come from academic programs teachers already use
Description of Teachers • Words used to describe teachers included "amazing", "wonderful", "holistic", "problem solver", "receptive", "dedicated", "hard worker", and "loves what she does"	**Description of Therapists** • Words used to describe therapists included "awesome", "very enthusiastic", "holistic", "willing to work with everyone", "flexible", "open", "validating", and

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• Sought out help	"energizing"
• Wants therapists in the classroom	• Wanting to do the best by kids
• Values therapists	• Like finding a friend
Therapists' Descriptions of Themselves • Therapists used words such as "persistent" and "flexible" • No expectations for teachers to follow through on everything • Respectful of teachers' busy schedules • Supportive but not convincing • Tried to fit with the individual teacher's teaching style	**Teachers' Descriptions of Themselves** • Teachers used words or phrases such as "letting go of having to know it all", "open to new ideas", and "never feeling insignificant in my role" **Teachers Sharing How Students Described Therapists** • Students used words such as "fun", "magical", friendly", "fun to have in the classroom"
Description of Their Relationships • Building relationship • Shared common goals • Shared ideas • Open to learning from one another • Took risks and comfortable if things didn't work well the first time • Equal input • Viewed students as belonging to both teacher and therapist • Developed friendships	**Description of Their Relationships** • Respected one another's wisdom and skill sets • Nurtured and open, safe, and risk-free relationship • Created a partnership and friendship • Listened to one another's ideas, then changed if techniques did not work; reevaluating and monitoring until successful • Remained positive and optimistic
SUMMARY	**SUMMARY**
• The therapists' flexible relationships with teachers created safe, non-judgmental, risk-free environments to grow with teachers • Teacher-focused approach rather than goal-focused approach where meeting the needs of the teacher in the classroom received priority over meeting the needs for data collection • Details regarding scheduling and	• By letting go of having to know it all and opening their rooms to therapists, the teachers created a space where the medical and educational models morphed into a blended model of techniques born out of flexibility, trial and error, sharing ideas, and respecting one another's skill sets • Success measured by ease of implementation, improvement in academic

establishing rules for interaction varied amongst pairs, with therapists yielding to the preferences of the teachers and appreciating open invitations to come into classrooms as their schedules allowed • Success measured when therapists observed teachers and students using techniques on their own and when receiving positive comments from administration and staff regarding improvements in behavior or academics	areas, improved focus for students, and increased student independence in using recommended therapy techniques • Appreciation of therapists' abilities to provide developmental intervention for struggling students while reducing the stress teachers expressed resulting from little to no outside support despite continually increasing academic demands from administration • Therapist perceived as a friend who is there to support, nurture, and positively impact the teachers' and students' experiences in the classroom

Source: Developed for this research.

4.3.1.2 Litany Layer: Interpretation

Asking teachers and therapists to define collaboration at the onset of the interview process created a reference point to compare and contrast the pairs' definitions to the definitions cited in the literature review.

The interviewed therapists' definitions were generally concise and varied in length from one to three sentences; in contrast, the teachers' definitions were lengthier, and elaborated on ideas while providing more description. By listing commonly repeated words from the therapists' definitions, the researcher was able to form a blended definition that best represents the interviewees' individual ideas: "A team working together and supporting one another while bringing their skills, knowledge, and expertise to meet the needs of all students, staff, and volunteers for the best educational outcomes."

Therapists' definitions compared, in part, to definitions prevalent in literature in their field; notable among these are "a style for direct interaction between at least two co-equal parties voluntarily engaged in shared decision-making as they work towards a common goal" (Friend & Cook, 2000, p. 6) and "an interactive team process that focuses student, family, education, and related services partners on enhancing the academic achievement and functional performance of *all* students in school" (Hanft & Shepherd, 2008, p. 3).

Aligning with current definitions most widely cited in their field, the therapists often used the words "team" and "all students" in their definitions of collaboration; however, the phrases "supporting one another," "bringing their skills, knowledge, and expertise to meet the needs," and "best educational outcomes" are less commonly cited in the therapy field's definitions. The therapists' definitions expand the current definitions to include supporting one another as key to defining collaboration. In addition, the phrase "best educational outcomes" exhibits a shift from the medical model phrase of "functional performance" to a phrase that captures the language of teachers working within an educational model. This shift shows therapists incorporating language or ideas from the educational field, providing evidence of the synergistic effects of pairs from two fields working together and finding common language to bridge one field to the other.

Teachers' definitions of collaboration mirrored comments from therapists who frequently noted that education has many variables and is not linear. Therapists, trained in the medical model, refer to their training as relating more to an "x=y" symmetry than the countless variables experienced in the classroom environment. In contrast to the therapists' definitions, teachers' definitions were longer (varying in length between three and ten sentences) and included significantly more detail and examples.

The teachers used more descriptive, colorful words than the therapists to define collaboration. For instance, words and phrases like "listening," "sharing ideas," "respecting points of view," "give and take," "best learning experience," "create something new," "gifts," "holistic," and "common purpose" created emotive definitions accented by examples of positive collaborative experiences. The teachers' definitions varied greatly in length and description, with few common definitions emerging; this, in turn, made it difficult to form a consensus definition.

General education teachers receive little training in collaboration, which could explain the wide range and variance in definitions, along with the lengthy descriptions as they attempted to create definitions that adequately represented the term "collaboration." Though the results showed a great deal of variance in definitions, a few phrases made their way into several definitions, including "working together," "sharing ideas," "respecting one another,"

"common goal," and "accomplishing more than working alone." While some definitions included the word "team," other definitions preferred phrases like "working alongside one another" or "working in concert."

Notably, several definitions included the sentiment that working toward the same goal was different than working to fulfill an Individualized Education Program (IEP) goal. This could be due to the fact that the goals the teachers and therapists worked together to meet encompassed global classroom goals (such as improving focus for the entire class) rather than an IEP goal (of improving focus for only one student).

As cited in the literature review, Wood and Gray (1991, p. 5) offer the following multidisciplinary definition of collaboration: "A process through which parties who see different aspects of a problem can constructively explore their differences and search for solutions beyond their own limited vision of what is possible." Significantly, this definition closely aligns with many common elements of the teachers' and therapists' definitions.

Combining elements from the therapists' and teachers' definitions, along with Wood & Gray's (1991) multidisciplinary definition, holds promise for the emergence of a wider encompassing definition of collaboration. Based on these different sources, the researcher proposes the following definition: "A voluntary evolving process through which parties who see different aspects of a problem work together and support one another by sharing ideas, participating in joint activities, and building on one another's expertise to achieve common goals beyond what could be accomplished individually."

As the discussion continues for the litany layer, the focus turns to patterns in the responses which can be grouped into six categories: drivers for collaboration, successful collaboration, scheduling, data collection, descriptions of one another, and descriptions of themselves while participating in their collaborative relationships. A discussion of each of the categories follows, along with examples taken from interviews, general observations, and direct interviewee quotations.

*** Drivers for Collaboration***

Therapists and teachers frequently cited the needs of the students as a reason for collaboration. For the therapists, needs frequently centered around organizational, focus, or developmental issues. Teachers, on the other hand, sought out help from therapists due to increased academic rigor, limited or no help from other adults in the classroom, and a general feeling of stress about meeting all the needs of diverse learners. Therapists mentioned that at times a principal would be the figure who encouraged the collaboration between the pairs. In all cases, the pairs embarked on their collaboration voluntarily, with each party negotiating the rules of engagement as their relationship grew. For the pairs, collaboration held promise to solve many challenges; however, new territory in general education classrooms left both finding their own way and creating unique roadmaps to success. Therapists mentioned that when teachers made their needs known, it resulted in therapists more effectively utilizing their specific skill sets to better support the teachers.

The therapists deemed collaboration successful when they observed teachers and students independently using strategies the therapists had taught in prior classroom sessions. In addition, therapists described their support in the classroom moving beyond the walls of the classroom and permeating the larger school culture. Students greeted the therapists with comments, such as "I'm doing my focus moves before I get on the bus" and "We did our recess refocusing routine today."

Generally, therapists viewed their support as successful when they received positive feedback from students, teachers, and/or administrators in terms of improved focus, organization, or academic skills. Verbal feedback made a bigger impact on feelings of success than did analyzing data results. Relating data results to collaboration success did not appear in any of the interviews with the therapists.

Teachers commented that data collection ranged from formal to informal, with a representative sentiment being that collaboration was "fun because I didn't have to do assessing—one more thing on my plate." For teachers, success correlated positively with increased enjoyment for students and teachers. Teachers expressed success in terms of

observing students using activities independently and leading the activities on their own without teacher intervention.

The teachers viewed collaboration as successful through observations of increased focus and attention during academics. Additionally, teachers felt relieved to know they were helping their students fill in missing developmental gaps and addressing student needs more holistically, nurturing the whole child rather than focusing only on academic skills. Using observation and academic data they routinely collected, the teachers noted improvement in reading and writing skills; they credited this achievement to focusing on the developmental needs of the whole child rather than only the narrow band of academic skills.

Teachers agreed that activities needed to fit easily into their schedules and be implemented with ease. In addition, instantly useable activities requiring no gadgets, equipment to monitor, or materials to put together made implementation more realistic within the context of busy classrooms and schedules.

Scheduling

As cited in the literature review, therapist often regard the lack of planning time as a barrier to collaboration including needing more time allotted for meetings, more efficient scheduling of meetings, better communication with teachers, and regularly scheduled meetings so that communication and relationships are maintained (Gallagher et al., 2014).

The results of this study showed that the therapists and teachers negotiated scheduling challenges by being flexible and understanding that though more time would be helpful, the reality of day-to-day teaching does not afford more time. The therapists and teachers, both experiencing full daily schedules, remained flexible to meet when their schedules allowed and for the time frame that became available. A broad range of scheduling reported by the pairs showed that scheduling held a contextual element, meaning that depending on the school and availability of teachers and therapists, the pairs agreed on scheduling that worked for them. Some scheduling was fixed with certain days and times, while others remained flexible depending on the therapist visits at a particular school or available time in the schedule.

In the study by Bose and Hinojosa (2008), occupational therapists reported several barriers to collaboration with teachers. One of the barriers cited included therapists feeling that brief visits did not positively impact outcomes. The results of this study showed that the pairs' scheduled meetings ranged from fifteen to thirty minutes in length and most impromptu sessions were even shorter, yet the pairs reported enormous benefits in those brief sessions including improved follow-through on therapist recommended strategies, students valuing therapists in the classroom, and teachers feeling supported by therapists.

During sessions when therapists actively taught in the classroom, teachers remained in the classrooms to learn while therapists modeled the lessons. The length of lessons varied from fifteen to thirty minutes each, occurring from one time per week to one time per month. Lessons taught varied from classroom to classroom, and had no unified plan or model (e.g. co-teaching).

Therapists cited co-teaching as a model used within special education classrooms, but neglected to use this term when discussing their teaching in general education classrooms. Teachers did not use the term co-teaching to describe their lessons with therapists. In all cases, the therapists led the lessons, modeled for the teachers and students, and the teacher followed alongside the students.

Regarding following up on lessons taught, therapists took advantage of any time that became available in their schedules and teachers encouraged therapists to come into classrooms as their time allowed. If the impromptu meeting time did not work, the teacher and therapist agreed in advance that saying "it is not a good time" was perfectly acceptable. Knowing that the timing may not suit the teacher, therapists did not take the situation personally but generalized the response to that of a teacher managing a busy classroom.

There is a tendency to perceive informal communication often referred to in the literature as "meeting on the fly" as a barrier to successful collaboration; however, the pairs in the study intimated that spontaneous meetings worked well in their collaborative relationships and afforded more time to work together than if the therapist could only come into the classroom during a fixed time frame. Teachers appreciated therapists informally entering the classroom

for observations of students, helping solve student challenges, or providing instructional feedback on previous teaching sessions.

Just as therapists reported impromptu visits to classrooms, teachers mentioned how much they enjoyed visiting with therapists in the therapists' offices or rooms. Proximity to therapists' offices or rooms formed the basis for casual conversations as teachers' schedules allowed, including before school, after school, and at lunch. For every teacher who mentioned casual conversations with the therapists, all noted that their classrooms were next door or in close proximity to the therapists' work spaces. Therapists mentioned that teachers visited therapists to ask questions, seek advice, or share ideas; as a result, these conversations deepened their collaborative and personal relationships.

Data Collection

Definitions commonly cited in multidisciplinary research (specifically regarding the therapy and education fields) uniformly state that for collaboration to exist, there must be at least one shared or common goal (Bedwell et al., 2011; Cook & Friend, 2010). The pairs reported mixed comments regarding explicitly setting goals. Therapists, being cognizant of the busy lives of teachers, set goals and collected student data focusing on the pairs' collaborative sessions only in situations where therapy supervisors asked for it. In those cases, it was the therapists and not the teachers who collected the data, usually for goals including but not limited to enhanced focus or improved academic skills for certain students.

Teachers unanimously stated that requiring extra formal data collection in addition to their required academic data collection negatively impacts collaboration. The only option for collecting data in the classroom setting, according to teachers, was using data that teachers already used for measuring academic skills. That being said, the pairs often mentioned using informal data collection techniques such as observation or anecdotal stories to measure shared goals; these goals included increased focus for their students, improvement in organization, strengthening developmental skills, fine motor skill enhancement for writing, or visual tracking activities for reading.

The therapists' and teachers' discussions regarding their process for improving lessons in the classroom tended to fall into the realm of action research, though the therapists and teachers failed to use the term "action research" specifically. As discussed by Kemmis (2007), action research is a process designed to transform practice in terms of what is done, what is learned, and how the change in practice affects the practitioner's relationships with one another. Kemmis (2007) uses the metaphor of a dance to describe the three aims of action research, which are: the ability to change practice, increase understanding of one's practice, and define the contexts or conditions that shape one's practice. "Action research can be a kind of music for this dance—a more or less systematic, more or less disciplined process that animates and urges change in practices, understandings, and the conditions of practice" (Kemmis, 2007, p. 1). The therapists' and teachers' collaborative relationships included discussing classroom goals, putting goals into action, evaluating the success of the lessons, problem solving, and revising techniques as needed. Indeed, the pairs participated in the dance of action research, though they may not have known the song to which they danced. The results of their efforts transformed their relationships, increased their understanding of how working with one another improved practice, and realized how context and specific conditions shaped their relationships. The pairs changed their practice and as a result participated in what Kemmis (2007) describes as "a practice-changing-practice" through their process of working together in the classroom.

Therapists' and Teachers' Descriptions of One Another

Both the therapists and teachers described one another in positive ways. Teachers used the word "flexible" frequently in their descriptions of the therapists. Teachers appreciated therapists' enthusiasm, as well as their sharing ways to be support students with developmental needs. Teachers frequently commented that therapists brought a "more holistic" perspective to classroom challenges that involved behavior and developmental issues limiting students' access to curricula. Therapists helped validate the notion that the challenges the teachers experienced with students had underlying causes beyond the teachers' expertise, and required the "sensory eye" of the therapist to provide intervention strategies that supported children's physical, mental, and emotional growth. Ultimately, through working together to meet the needs of all students in the classroom, teachers valued the

knowledge, skills, and friendships that came out of their collaborative relationships with the therapists.

Therapists described teachers using positive words and phrases such as "amazing," "wonderful," "dedicated," and "hard worker." Therapists valued teachers for their problem-solving abilities, willingness to seek help, and receptiveness to learning intervention strategies beyond the teachers' educational training. Therapists mentioned being valued by the teachers and appreciated the fact that teachers wanted them in their classrooms. As a result of collaborating with teachers, therapists reported higher levels of confidence working with larger groups and leading lessons. Overall, therapists reported increased job satisfaction and effectiveness due to their successful collaborative relationships with teachers.

Teachers added an additional description from the students: how the students felt about having the therapists in the classroom, in their own words. Students used words and phrases such as "fun," "magical," friendly," and "fun to have in the classroom." The interviewed therapists were generally called by their first name by the students (for instance, "Ms. Sarah"); when asked why students use their first names when all other staff went by their last names, the therapists replied that using their first names made them appear more friendly and fun to the students. When teachers were asked if they saw any ramifications from students calling therapists by their first names, a common answer captured the general sentiment: "Well, that is interesting." If therapists want to be viewed more seriously in their roles as academic support staff members, it is possible that using a traditional "title-surname" structure may afford them greater respect within the classroom; however, no conclusions could be drawn during the interviewing process, despite attempts to dig deeper.

Therapists' and Teachers' Descriptions of Themselves

When therapists and teachers described themselves, inequalities in their roles became apparent. For instance, therapists used phrases like "no expectations for teachers to follow through on everything" and "supportive but not convincing." Therapists' descriptions of themselves illustrated their role as the person providing the new information; conversely, teachers described themselves as the receivers, with phrases like "letting go of having to

know it all," "open to new ideas," and "never feeling insignificant in my role" being representative sentiments.

Therapists described making themselves welcome in the classroom environment by being respectful of teachers' busy schedules and trying to deliver information and new ideas in a manner that fit with the individual teacher's teaching style.

Therapists' and Teachers' Descriptions of Their Relationships

Therapists described their collaborative relationships with teachers as relationships built over time, whereby each member of a pair learned to trust one another and take risks. The word "sharing," used often in the research interviews, lends itself to the ideal of both parties working together to explore new ideas, choose common goals, learn from one another, and provide equal input when teaching together in the classroom. The therapists viewed students as belonging to both the teacher and the therapist. Gradually, professional relationships deepened into friendships.

Though the therapists' and teachers' descriptions of themselves uncovered evidence of the therapists being the provider of information and the teacher being the receiver, their descriptions of the collaborative relationships intimated sharing of ideas and equal input with classroom intervention.

The therapists brought to the relationship unique skill sets; however, when implementing strategies or solving problems, the teacher earned equal footing in terms of how to make things work in the classroom environment. Being skilled in a particular intervention, the therapist nonetheless relied on the teacher to assist with strategies that work within the reality of busy classrooms, as opposed to the therapist's experience with using the intervention in small groups or a one-on-one setting.

4.3.1.3 Summary: Litany Layer Interpretation

Interview analysis at the litany layer revealed two distinct initial roles in the teacher-therapist classroom relationship: therapists in the supporting role, and teachers in charge. However, roles evolved; successful collaboration began when therapists responded to the teachers'

needs, as opposed to therapists focusing on IEP goals or objectives from their supervisors. In turn, teachers opened their classroom doors, inviting therapists to share intervention strategies, problem-solving ideas, and therapy tools. Together the pairs negotiated their relationships in terms of communication styles, flexibility with scheduling, data collection, and the overall experience of working together.

Ultimately, the pairs expressed deep appreciation for one another's skills sets; they described their relationships in terms of friendship, mutual respect, and appreciation for the positive experiences of working together. Teachers reported lowered stress levels, while therapists felt increased feelings of accomplishment. Both shared sentiments of enhanced job satisfaction as a result of their voluntary collaboration in the classroom setting. When comparing the teachers and therapists experiences with direct service, often referred to as a "pull-out" model," the value of classroom collaboration becomes clearly illustrated at the litany layer.

Key insights:

> The pairs chose to collaborate due to observing unmet needs of students, rigorous academic mandates for students from policymakers, limited staff in the classroom to support teachers and students, and frustration observing students struggling academically and behaviorally; mandated frameworks such as RTI or MTSS were not reported as the drivers for collaboration.
>
> Collaborative partnerships were deemed successful by therapists when therapists observed teachers and students using the activities along with receiving positive feedback from administrators and teachers; whereas teachers reported success based on how readily the activities fit into their classroom routines, student' abilities to readily use the activities independently, and observed improvement for students in terms of organization, focus, developmental skills, and learning.
>
> Though the pairs failed to use the term "action research," the description of their processes for improving lessons in the classroom tended to fit the definition of action research; the omission of action research in best practice recommendations

from the occupational therapy field shows a gap between the medical and educational models.

The pairs described their relationships in terms of mutual respect for one another's skill sets, developing friendships, supporting one another's efforts, and deep appreciation for time spent collaborating with one another.

This discussion now moves on to the systemic layer of CLA. Here the teachers and therapists are asked to discuss variables in the system, or their operational environment, that support or limit their collaborative efforts.

4.3.2 Systemic layer

At the systemic layer, questions focus on how systemic elements enhance or limit collaborative efforts of the teacher-therapist pairs. Systemic elements may include legislative frameworks, administrative directives, training, mandated protocols, or contextual parameters designed to advance or constrain individuals working within the system. The system also includes the environment within which the practitioner works, or more simply, the workplace and work conditions. As the data analysis moves to the systemic layer, it is important to note that although the layers appear to be independent of one another in the presentation format in this chapter, the layers are fluid and responses from the interviewees within one layer may contribute valuable insight when discussing the layers above or beneath, or appear to overlap For instance, when analyzing the systemic layer, the researcher strives to understand how elements at the system layer affect discourse in the litany layer above or the worldview layer below. Although each layer is presented as separate entities, the CLA framework recognizes that meaning is constructed as a whole without necessarily causal boundaries. Rather, the layers represent depth of meaning as cognitively constructed by and between individuals and seeks to unpack the deeper cognitive meaning as the source of observable behavior. Thus it is the combined new knowledge, insights, and discussions in all four layers that ultimately answer the research questions.

4.3.2.1 Systemic layer: Results

Table 4.2: Responses within the systemic layer

Occupational Therapists' Responses	General Education Teachers' Responses
DISCUSSION	DISCUSSION
Administrative Support • All administrators and supervisors on board from superintendent down makes everything "start to roll" • Principals and supervisors with special education background more likely to support collaboration	**Administrative Support** • Mixed comments regarding voluntary collaboration versus being forced to collaborate by administrative mandate; some felt that being forced to collaborate made teachers step outside their comfort zones, while others felt more comfortable with voluntary collaboration • Administrative support essential for teachers to feel safe taking time to do activities not specifically scripted in lesson plans or not viewed as "academic" by administrators
Garnering Support for Collaboration • Initial information or brief staff development training about collaborative classroom strategies garnered support or approval from principals • Most leaders supported collaboration, with a few principals or supervisors not supporting it but therapists "respectfully collaborated anyway" because of literature supporting collaboration as "best practice" • Supportive principals actively sat in on meetings, participated in trainings, created time for collaboration, observed classrooms, and told teachers to "invite the OTs into your classrooms"	**Garnering Support for Collaboration** • Excitement for collaboration swayed administrators to support efforts • Administrators hearing teachers talking about benefits swayed the decision-makers • Some principles were described as "out of the box" thinkers in terms of their support for collaboration • General education teachers with special education backgrounds or their own special needs children embraced collaboration • Administrators with an attitude of "the students come first" were more likely to support general education collaboration with OTs who were contract employees

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	• Some principals wrote grants for materials and redesigned classrooms with slanted desks, fitness balls, stability rings, and new chairs • Teachers appreciated when administrators visited classrooms and commented on how well students were doing as a result of using therapist-directed interventions • Interventions permeated school culture, with adults participating in the activities as well as students
Staff Training • Therapists conducted staff workshops ranging from five minute staff talks to half- and full-day professional development seminars • "Mini-in-services" in the classrooms that included sharing classroom strategies and brief theory about why strategies work • Students with IEP occupational therapy goals learned intervention strategies during one-on-one sessions with therapists; students transferred skills to the classroom by teaching all students the strategies, with teaching assistance from therapists • Put together a staff development catalog for staff to choose professional development training based on the skills and specialized training of therapists	**Staff Training** • Workshops provided avenue for teachers and therapists to "speak the same language" • Dedicated teachers attended on their own time; even with busy schedules they "felt it was very important" • Therapists limited theory and focused on practice, or the so-called "ABCs" • Teachers weren't "bogged down by medical stuff" • Teachers appreciated "real life, day to day information" • Therapists provided just enough information so the teachers understood the concepts, felt a little smart and could use some big words, but the value was in doing the activities • During one-on-one therapy sessions, students learned intervention strategies and then taught the students in class the strategies, ultimately increasing teachers' understanding of what therapists do with students during one-on-one sessions
Communication and Follow-up • Email, quick talks right after class, lunch	**Communication and Follow-up** • Email, quick talks right after class, lunch

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time chat, and when seeing each other in the office were the most frequently reported types of follow-up communication between teachers and therapists • Though communication was informal, therapists reported it as effective • Lesson plans or detailed instructions provided when teachers asked for them • Observation checklists provided for teachers and Response to Intervention (RTI) teams along with "what helps" suggestions • Professional Learning Communities (PLCs), team meetings, and enrichment classes for students provided release time for teachers and therapists to plan and discuss collaboration efforts	time chat, and when seeing each other in the office were the most frequently reported types of follow-up communication between teachers and therapists • Though communication was informal, teachers reported it as effective • Proximity to therapists' offices created greater chance for collaboration to be successful, as teachers reported "dropping in" and talking with therapists about students • Teachers appreciated lesson plans for follow-through when the therapists were not in the classrooms • PLCs, grade level meetings, and enrichment classes for students provided time to discuss alignment, common language, CCSS, new strategies, and new materials
Role of Response to Intervention • Therapists reported working with reading teachers in small groups; although small group intervention is a directive of RTI frameworks (Tier 2 or Tier 3), therapists stated they are not officially included in RTI frameworks as it is a general education directive and they work in special education • None considered their classroom collaboration to be part of Tier 1 intervention, as "support services" such as occupational therapy are generally not part of RTI models, according to the therapists • Confusion around RTI directives included: who pays for interventions, who tracks interventions, differentiating between tiers, lack of official RTI policies, general lack of understanding about RTI • Therapists visit many schools, and each	**Role of Response to Intervention** • Collaboration was seen as a "trial" to see if interventions should be added to RTI framework • Administration did not see OT support as part of RTI strategies • Strategies reported as very helpful, though uncertain where the strategies belong within an RTI framework • General confusion around RTI and how OT interventions fit in RTI models • Teachers reported uncertainty regarding how or if interventions with therapists during whole class instruction qualified for RTI Tier 1 interventions as designated by district or school RTI frameworks • Teachers recommended the researcher speak to the therapists to determine how the therapists' interventions in the

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school had a tendency to define RTI protocol differently—no universal procedures for the district as a whole	classroom fit within an RTI framework
Programs Enhancing Collaboration • Programs reported as working well for teachers and therapists to use jointly: S'cool Moves (mentioned by all pairs), and one to three mentions each of Handwriting Without Tears, How Does Your Engine Run, Bal-A-Vis-X, Brain Gym, or yoga • Programs aligned with CCSS made collaboration more effective and helped therapists see the connections between their work and academic skills (beyond focus, attention, organization, and developmental skills)	**Programs Enhancing Collaboration** • Programs reported as working well for teachers and therapists to use jointly: S'cool Moves (mentioned by all pairs), and one to three mentions of Handwriting Without Tears, The Alert Program, Bal-A-Vis-X, Brain Gym, or yoga • Teachers reported academic connections more readily than therapists, but also connected the dots between improved focus, attention, organization, and developmental skills to improvement in academic subjects
Others Involved in Collaboration • Instructional assistants, social workers, speech therapists, reading specialists, physical therapists, school psychologists, behavior specialists, and special education teachers were reported by therapists as supporting collaboration efforts	**Others Involved in Collaboration** • OT supervisor, PLC team members, reading teachers, physical therapists, special day teachers, and speech teachers were reported by teachers as supporting collaboration efforts • Teachers mentioned that many of the support services are still doing "pull-out" model, but teachers would prefer services take place in the classroom
Factors Limiting Collaboration • Pay for performance, testing demands, minute-by-minute lesson plans, principals patrolling to make sure plan book matches activity, and A-F grading of schools made teachers fearful of collaborating in the classroom and taking time away from academics. Some teachers viewed as "brave" to use time in classroom for therapists' suggested activities • Principals not understanding the importance of foundation skills, hence no	**Factors Limiting Collaboration** • Scripted lesson plans and constant "hoops to jump through" • Developmentally inappropriate curriculum for younger students • Focus on outcomes instead of the whole child • Professional development focusing on academics, rather than collaboration that focuses on whole child • Half-day kindergarten makes it hard to fit

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validation for therapists' efforts • No approval for teachers to attend collaboration training focusing on developmental or foundation skills • Overscheduling of therapists left little time for classroom collaboration; as a result, therapists rely on "on the fly" collaboration, and were stretched too thin • Therapists forced by administration to assume the role of disciplinarian for teachers of disorganized classrooms; this lead to teachers resenting their presence • Behavior specialists and those using Applied Behavioral Analysis (ABA) needing more training regarding sensory needs of children	everything into the daily schedule—too much focus on academics and not enough whole child focus • Substitute teachers covering for release time creates the need to write more detailed lesson plans, leading to the feeling of "more on my plate" • Therapists using interventions in a reactive manner instead of proactively, before behavior escalates • Principals choosing professional development rather than getting input from teachers, who need training focusing on physical, emotional, and intellectual development rather than only professional development focusing on academic subjects • Special education resources are not resources that general education can tap into; lack of labeling students early on results in no resources for children not specifically labeled as "special education" • Good teaching strategies and developmental activities get pushed aside for pressure of meeting benchmarks • General education not included in special education meetings, leading to lack of opportunity to sit down and solve problems for struggling students
SUMMARY	**SUMMARY**
• Administrators with a special education background were most likely to support the idea of therapists working in classrooms; this scenario resulted in increased opportunities for therapists to train teachers (though training varied in design based on time and resources available) • In the absence of a clear model to achieve successful collaboration, therapists relied on	• Teachers rallied support for collaboration through enthusiasm, reporting positive outcomes, and convincing administrators that therapists offered value in meeting student goals • Despite therapists' lack of inclusion in intervention models, teachers valued the support and contributions, considering their collaboration as a "trial" to determine if

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their own individual interpretations, commitments, attitudes, and behaviors to pursue collaboration • Increased training and mentoring were more closely associated with collaboration success than a clearly defined model • Despite many factors limiting therapists' abilities to collaborate with teachers, therapists negotiated barriers through their own initiative even without a functional model to do so	therapists should be included in intervention models • Teachers valued training from the therapists, and credited training with a newfound ability to communicate with therapists and understand how therapy interventions supported student goals • Despite many factors limiting collaboration, the most notable limitation focused on general education teachers being excluded from special education meetings and training, thus limiting general education teachers' abilities to handle difficult student behavior and academic issues

Source: Developed for this research.

4.3.2.2 Systemic Layer: Interpretation

At the systemic layer, therapists' and teachers' responses provided deeper insights as to how elements within the system limited or supported collaboration efforts. The pairs' responses are discussed in the following paragraphs using the same headings as those used in Table 4.2.

Administrative Support

Therapists agreed that administrative support created a positive environment for teacher-therapist collaboration. Without the support of supervisors, principals, and superintendents, teachers feared being perceived as taking time away from academics in order to teach students strategies that prepared them to learn.

When questioned as to why some administrators supported the therapists' efforts in general education classrooms, the therapists shared that the most supportive administrators had backgrounds in special education. As one therapist noted, the principal recommended to the teachers, "Invite the OTs into your classrooms."

At times, a principal noticed a teacher struggling with behavior and recommended the therapist observe and offer support for the teacher. Without the teacher's consent, this type of recommendation puts the therapists in an awkward position: not wanting to overstep

boundaries, while additionally maintaining the tenet that collaboration needs to be voluntary. Forced collaboration received mixed reviews. Some teachers commented that when the principal insists on collaboration with support staff, it pushes the teachers out of their comfort zones to explore working with others within the classroom environment. Generally, the consensus of the teachers favored voluntary collaboration as the preferred avenue for building positive relationships.

Facing administrative pressures such as scripted lesson plans, the imperative to be on a certain page at a certain time, and frequent visits from top-down administrators, teachers felt most comfortable collaborating when their supervisors valued collaboration. Teachers frequently mentioned that administrators lacked understanding of how therapy interventions helped students access curricula and ultimately contribute to, rather that detract from, academic goals.

Garnering Support for Collaboration

Therapists gained administrative support for collaboration by providing principals with information about the value of collaboration and demonstrating classroom strategies designed to build collaboration capital in general education classrooms. Most administrators supported collaboration, with a few principals or supervisors not supporting it; in those cases, therapists "respectfully collaborated anyway" because literature from the field of occupational therapy supported collaboration as "best practice." Therapists appreciated supportive principals who participated in meetings, attended trainings, created time for collaboration, observed classrooms, and encouraged teachers to invite the therapists into their classrooms.

From the teachers' perspectives, their own enthusiasm for collaboration convinced administrators to support those efforts. Administrators heard teachers talking about the benefits of collaborative relationships in general education classrooms; this, in turn, swayed leaders to support the teachers and therapists. Those administrators who had special education backgrounds or special needs children of their own were noted to embrace collaboration more readily than staff from general education backgrounds.

Support for collaboration, as well as the method in which it was garnered, sometimes was found in non-traditional forms. One teacher reported having the students present activities to the school board and having the school board members participate during the presentation in order to garner support for a grant for therapy supplies for the classroom. Some principals supported collaborative efforts by writing grants for materials and redesigning classrooms with slanted desks, fitness balls, stability rings, and new chairs, which aligned with therapists' suggestions and goals.

In practice, many therapists who work for schools do so on a contracted basis; this raises an important issue underlying collaborative efforts. Unlike teachers, some therapists are independently contracted on an hourly basis rather than being an employee of the district. When therapists are contracted hourly, the tendency is to limit contract services that are not either direct services (pull-out) or consult services (meeting briefly with a teacher to offer guidance with a child who has an IEP). Both contracted and district-employed therapists reported expanding the scope of services, making employment status a secondary concern; an example cited was teaching a child with an IEP a calming routine, and then having the child teach the entire class the calming routine alongside the therapist. The general education teacher and students learned, while the therapist (and by extension, the original student) taught. Teachers often mentioned in their interviews how much they appreciated the therapists working with general education students and contributing to the class as a whole.

Teachers appreciated when administrators visited classrooms and subsequently commented on how well students were doing as a result of using therapist-directed interventions. The teachers reported that interventions permeated school culture, with adults participating in the activities as well as students. The therapists expressed feeling more effective in their job when they visited schools and observed teachers and students participating in the interventions successfully and confidently on their own.

Staff Training

Therapists conducted staff development training ranging in time and format from five-minute talks during staff meetings to half- and full-day professional development workshops, or "mini-in-services" in the classrooms. Often, staff training was on the teachers' own time,

taking place before or after school. Dedicated therapists conducted training outside contracted school hours, while teachers similarly attended training on their own time. Even with busy schedules, therapists and teachers "felt it was very important" to find time for training.

During training, teachers valued practical and concrete information over discussion of theory. Teachers appreciated "real life, day-to-day information" without getting "bogged down by medical jargon." Therapists provided just enough information so the teachers understood the concepts, but the value was in learning and doing the activities. The staff training created an avenue for teachers and therapists to "speak the same language."

Teachers remarked that too often, staff development is a top-down decision; as a result, teachers fail to get training in areas of need. One therapist commented that the support staff created a staff development catalog for teachers and administrators to choose professional development training based on skills and specialized training of therapists. The training from the therapists strengthened the teachers' bases of knowledge and filled in missing gaps in their initial teacher training programs.

When students IEPs required a direct service model for intervention, therapists taught students routines that supported class goals. Impressed teachers enjoyed observing students on IEPs become leaders by teaching the entire class the routines learned during pull-out sessions. When therapists and students led the classes, the teachers commented that they understood more fully what therapists did in their profession. Prior to seeing therapists work with students within the context of the classroom, teachers mentioned being unsure as to what therapists did with students when they pulled them out of class. By bringing students back into the classroom with new skill sets and subsequently sharing the new skills with the entire class, everyone benefitted from targeted support for the students with IEPs. In addition, the teachers increased their knowledge and appreciation of therapists' skills sets.

Communication and Follow-up

The most frequently reported type of communication between therapists and teachers were email, quick talks right after class, lunch chats, or meeting by chance in the school office.

Though communication was informal, all pairs reported it as effective. Physical proximity, mentioned often in interviews, created more opportunities for collaboration, as teachers reported "dropping in" on therapists before school, after school, and during lunch.

Teachers valued lesson plans or detailed instructions that allowed them to conduct therapist-endorsed activities in the absence of the therapist in the classroom. Lesson plans provided a key component of carry-over challenges frequently reported in the literature review. Teachers referred to observation checklists provided for teachers and RTI teams, along with "what helps" suggestions to accompany the checklists.

Professional Learning Communities (PLCs), team meetings, and enrichment classes for students provided release time for teachers to plan and discuss important matters among staff members. An interesting trend surfaced when interviewing teachers and therapists regarding whether or not therapists attended the PLCs, team meetings, or release times. The pairs agreed that attendance by the therapists sounded like a good idea, albeit one they had not considered prior to the interview. PLCs, grade level meetings, and enrichment classes for students focused teachers' time on discussing curricula alignment, common activities, CCSS, and implementing new strategies. After therapists provided staff training or "mini-in-services" in the classrooms, teachers expanded their discussions during release times to include therapy interventions; however, this was often added to the agenda as an aside rather than the main focus of the meetings, giving the issue diminished importance. Teachers shared the downside of release time: the need to provide detailed lesson plans for substitute teachers created more work for the teachers, and lead to a feeling of "more on my plate."

Role of Response to Intervention

As discussed in Chapter 2, Response to Intervention (RTI) is a framework designed to enhance collaboration between support staff and teachers by providing intervention within three separate tiers: Tier 1, Tier 2, and Tier 3. Tier 1 focuses on classroom intervention for all students. Tiers 2 and 3 provide intervention in small groups or one-on-one. Therapists reported working within Tier 2 or Tier 3 with reading teachers or small groups, but all except one therapist stated their involvement in RTI to be voluntary, with no specific directive in their districts' or schools' RTI frameworks for their official involvement. An exception to

using RTI frameworks involved a therapist and teacher pair from Michigan who reported that schools in Michigan use Multiple Tier of Systems Support (MTSS) frameworks. The responses from the pair working within an MTSS corroborated the responses from the pairs working within RTI frameworks—uncertainty as to how their collaboration officially fit within MTSS framework.

Though RTI holds promise as an effective framework for enhancing collaboration between support staff and general education teachers, confusion was frequently reported between therapists who work for special education departments and general education teachers who are not part of special education. Therapists commented on several areas of confusion regarding RTI directives, such as: who pays for interventions; who tracks interventions; confusing tiers; lack of official RTI policies; general lack of understanding about RTI; and differing implementation of RTI from school to school. Therapists working at many schools found a lack of consistency in implementation of RTI, though individually they lacked the time and/or resources to figure out where their services fit within the differing RTI frameworks. Therapists, often visiting many schools within a district, recommended defining RTI protocol using universal procedures for the district as a whole. Therapists did not consider their classroom collaboration as part of Tier 1 intervention, and commented that support services such as occupational therapy are generally not part of RTI models.

Teachers reported that administrators failed to recognize occupational therapy support as part of RTI strategies. Though teachers reported the strategies as very helpful, they expressed uncertainty as to where these strategies and interventions belonged within RTI frameworks. A general confusion around RTI (and how therapy interventions fit within RTI models) caused teachers to recommend that the interviewer "ask the therapists," and the therapists to recommend that the interviewer "ask the teachers." It is precisely this sort of disconnect that serves to illustrate how unclear and confusing policy creates a barrier to collaboration. As with the therapists, teachers reported working unofficially within Tier 2 or Tier 3 with therapists, but were uncertain how or if interventions with the whole class counted in Tier 1. Despite the fact that therapists worked within general education classes, a disconnection between the teachers and therapists regarding collaboration as part of RTI frameworks proved evident during the interviews.

Programs Enhancing Collaboration

Therapists and teachers both agreed that jointly using programs and activities enhanced collaboration. Programs reported as working well for teachers and therapists to use jointly included all pairs using S'cool Moves, and between one and three mentions of Handwriting Without Tears, The Alert Program, Bal-A-Vis-X, Brain Gym, and yoga. It is important to note the reason all pairs reported success using S'cool Moves is due to pairs being recruited from S'cool Moves workshops, so bias openly exists due to recruitment protocol.

Programs aligned with CCSS made collaboration more effective and helped therapists and teachers expand the scope of collaboration beyond just focus, attention, organization, and developmental skills. S'cool Moves' alignment to CCSS merited mention and appreciation from the pairs due to the ability to connect therapy interventions to academic skills. Teachers reported academic connections more readily than therapists, but also connected the dots from improved focus, attention, organization, and developmental skills to improvement in academic subjects.

Others Involved in Collaboration

Therapists reported instructional assistants, social workers, speech therapists, reading specialists, physical therapists, school psychologists, behavior specialists, and special education teachers as supporting collaboration efforts.

Teachers mentioned that occupational therapy supervisors, PLC team members, reading teachers, physical therapists, special day teachers, and speech teachers as supporting their collaboration efforts. Teachers reported that many of the support staff used the direct service model, though not the preferred service delivery for classroom support.

Factors Limiting Collaboration

The pairs managed to create successful collaborative relationships despite limitations. Therapists and teachers, throughout the interview process, expressed concerns regarding factors that negatively impact on collaboration. Factors that made teachers fearful of collaborating in the classroom and of "taking time away from academics" included pay for

performance, testing demands, minute-by-minute lesson plans, principals patrolling to makes sure plan books match activities, and Florida's A-F grading of schools. Therapists viewed teachers as "brave" to use time in classroom for therapist-suggested activities. When principals did not understand the importance of foundation skills, therapists lacked validation for their efforts. Therapists and teachers noted that principals favored "academic" professional development training over collaboration training focusing on developmental or foundation skills.

Therapists expressed concern about administrators forcing them to assume the role of disciplinarian for teachers of disorganized classrooms, in turn leading teachers to resent their presence and reduce collaboration success. This concern related to generic situations, and not specifically to the interviewed pairs. Therapists commented that behavior specialists and those using Applied Behavioral Analysis (ABA) needed training in sensory strategies to positively impact behavior issues in classrooms. Pairs mentioned that schools using Positive Behavioral Interventions and Supports (PBIS) showed mixed results, as some children needed proactive strategies for behavior issues instead of delayed rewards for good behavior. Teachers added that therapy interventions in the classroom provided proactive strategies to support goals formulated through PBIS plans.

Though teachers reported many positive experiences while collaborating with their therapist partners, many issues limiting the full benefits of collaboration weaved their way into interview conversations. The limitations most commonly mentioned by teachers included scripted lesson plans, constant "hoops" to jump through, and outcome-based (instead of holistic) approaches to learning.

Discussing developmentally inappropriate curricula for younger students proved to be an emotionally charged topic in the conducted interviews. Kindergarten teachers reported that half-day kindergartens limited their ability to teach holistically due to the heavy focus on academics and fast-paced instruction. Though teachers understood the value of providing time for developmental skills and movement, the pressure for kindergarten students to perform academically overrode the teachers' abilities to provide a classroom experience focused on the whole child.

Therapists expressed that their role often felt reactive rather than proactive due to the heavy focus on academics instead of providing developmentally appropriate instruction that supports learning in a broader context, beyond academics. Teachers lamented that professional development training focuses on academic skills rather than providing training opportunities with therapists–emphasizing the teachers' needs to improve their knowledge of therapy techniques and application in the classroom setting. Both teachers and therapists expressed dismay that important skills, activities, and learning opportunities get pushed aside from the pressure of meeting academic benchmarks.

To add to the challenges, teachers expressed concern that special education resources are not resources that general educators can tap into; due to the lack of labeling students early on, there are no resources for children not labeled as "special education."

Teachers reported that general education lacks inclusion in special education meetings, in turn, leading to missed opportunities to sit down and create strategies that support struggling learners.

Despite the limitations expressed by teachers and therapists, their collaborative relationships provided relief from the pressures, stresses, and short-sidedness of academically-focused directives from policymakers and administrators.

4.3.2.3 Systemic layer: Summary

At the systemic layer, the pairs negotiated collaborative relationships despite a clearly defined model or framework. Legislative frameworks that seek to promote successful collaboration tend to have a lower rate of efficacy; however, efficacy could be enhanced through training and the integration of practical insights into the frameworks. In the absence of a framework, the pairs credited collaboration success in part to training. Professional training led by therapists enabled the pairs' collaborative relationships more so than any particular framework. Within the systemic layer, the frameworks in place did not limit or enhance collaboration—pairs simply worked outside the frameworks, most notably at the Tier 1 level focusing on whole class interventions. Pairs readily identified working in small groups, which they mentioned could potentially be considered Tier 2 or Tier 3 in an RTI

framework; however, uncertainty remained due to schools' varied directives as to what constitutes Tier 2 or Tier 3 intervention, and whether or not therapists are included in the framework at this level.

Key insights:

> The pairs felt safe to take time for collaboration when administrators supported and believed in collaboration; administrators with backgrounds in special education were most likely to embrace and support collaboration.

> Despite no specific training in frameworks designed to enhance collaboration, therapists creatively found ways to provide the needed training for staff members whether it be brief five minute staff meeting introductions to garner interest in collaboration, classroom mini-inservices, before or after school training sessions, or scheduled half or full day staff development training.

> The pairs did not view their informal communication and follow-up after classroom collaboration sessions (brief chats, emails, lunch talks) as a negative situation; conversely, the pairs appreciated the flexibility of informal communication as a way to negotiate the time constraints common to busy staff members.

> Teachers reported being part of PLCs or grade level team meetings but noted the oversight of not inviting therapists to join them during meeting times as a missed opportunity for enhancing collaboration.

Within the system, no clear framework or directive created the space for the pairs to successfully collaborate. Looking deeper, what assumptions, perceptions, or personal worldviews led the pairs to seek to collaborate outside the system, on their own?

In the next section, the worldview layer is unpacked and interpreted in an effort to understand the underlying catalysts of collaboration.

4.3.3 Worldview layer

It is within the worldview layer that assumptions, perceptions, and worldviews of participants begin to reveal meaning at a deeper level. This layer generates rich descriptions of how preconceived notions contribute to the collaborative relationships of teachers and therapists. It also reveals how the assumptions and worldviews of others, outside the collaborative relationship impact the relative 'success' of the collaboration.

Within the context of collaboration between occupational therapists and teachers, the worldview layer seeks to discover why the pairs chose to develop their relationships outside of any predetermined framework or legislative mandate. At this layer, comparing and contrasting responses from the pairs provide insights as to how their worldviews enabled or hindered their collaborative processes and informed their cognitions at the systemic level.

4.3.3.1 Worldview layer: Results

Moving deeper into the layers of the CLA framework, Table 4.3 summarizes the interviewees' responses at the worldview layer. Included in the summary are pairs' assumptions and perceptions regarding their collaborative relationships.

Table 4.3: Responses within the worldview layer

Occupational Therapists' Responses	General Education Teachers' Responses
DISCUSSION	DISCUSSION
Medical Model Training • Taught to use direct service model, which is less effective; under a teacher-therapist collaboration model, students with IEPs are helped in the context of the whole classroom, along with helping teachers deal with others in the classroom who are not on IEPs but need intervention • Letting go of medical model hegemony • Training in medical model isn't reality in	**Valuing The Medical Model** • Realization of the need for more training in behavior interventions and sensory processing—often stating that all teachers entering the profession need more training in these areas • Medical and educational models are not separate entities; rather, they are needed to work together for a holistic approach to a child's growth. Teachers feel appreciation for therapists' medical backgrounds and

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the classroom—too many variables in the classroom • Realization of the need for more education of what occupational therapists do • Not trained as collaborators, so the process was difficult due to inability to use a medical perspective when seeing students with medical needs not necessarily related to the students accessing curricula; had to wear the "school-based hat" to collaborate effectively	their value in the classroom setting
More Difficult, but More Effective • Collaboration was more difficult than expected, but worth it because outcomes are better • Increased understanding of integrating academics into therapy techniques in order to increase efficacy • Pull-out and small group therapy sessions are easier but less effective; medical model is designed more for one-on-one instead of big groups, but after collaborating in the classroom, therapists reported being more confident working with groups of students	**OT Contributions in the Classroom** • By helping one student with an IEP, many other student with similar therapy needs were helped in the classroom • Students with IEPs were not singled out due to all students doing similar activities as the students with IEPs; as a result, students with IEPs were more motivated to complete the activities when all students did the activities together • OTs coming into classrooms increased teachers' confidence levels, lessened their struggles with difficult students, increased their understanding of sensory needs, and improved their abilities to help all children access curricula • Pull-out delivery system kept therapy services a "mystery," with teachers not knowing what OTs really did and not seeing carry-over into the classroom
Respect for Teachers • Increased respect and appreciation for teachers' roles while seeing all they have to do on a daily basis • OTs are the "fun ones"—right-brained people, and less skilled at classroom management; therapists had a new	**Appreciation for Therapists** • Increased appreciation for OTs skill sets and how their knowledge can be applied to support teaching efforts in the classroom • OTs, due to their training in therapy areas, have a different perspective and see things

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appreciation for the organizational skills of teachers • Thinking more like a teacher now instead of being the "fun" OT; focusing on teachers' needs and how to help teachers meet their goals has made the job more fun	that teachers do not necessarily see
Defining "Behavior" • The word "sensory" can turn off teachers; shows the need for more training on sensory to understand the "why" behind certain behaviors • Confusion over the word "behavior": behavior is viewed as a mental health term, and as such, OTs have limited training in "behavior" as defined by their profession; OTs feel they are not qualified to handle behavior issues that fall into the mental health realm	**Understanding "Behavior"** • The term "behavior" is a blanket term that covers every type of behavior in the classroom with no separation between the terms "behavior" and "sensory" • After having OTs in the classroom, teachers felt increased understanding of how underlying causes, such as sensory issues, can impact classroom behavior • Letting go of "expert" status and opening classroom to OTs released the feelings of inadequacy—for instance, lessons were not engaging enough, or the teacher was poor at managing certain student behaviors • Learned to be more proactive than reactive when it comes to student behavior
Policymakers' Assumptions, Perceptions, and Worldviews, According to Therapists • Policymakers need to be more informed about the developmental needs of children and apply brain research to policies • No easy fix—there exists an incongruence between policies affecting teaching of children and their developmental needs; policymakers need to spend more time "in the trenches" to get a realistic view of the needs of children	**Policymakers' Assumptions, Perceptions, and Worldviews, According to Teachers** • Policymakers bring a lot of assumptions to their decision-making process and think teachers are making excuses for why some children have difficulties in the classroom; teachers commented that children are complex, there is no easy fix—children are developmentally unprepared for the academic rigor; policy-makers are forgetting Piaget, expecting more from children than their age can handle; phrases like "educating the whole child" were used consistently by teachers; metaphors included "like potty training before a child is ready" and "kids are in a pressure

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cooker"

SUMMARY	SUMMARY
• Reaching an understanding that the medical model approach is designed for one-on-one therapy rather than classroom support • Coming to the realization that, direct service or small group intervention is easier, but less effective • Clarifying assumptions about how teachers and therapists view the term "behavior," as well as the causes of certain behaviors • Policymakers' lack of awareness regarding children's developmental needs, and how this influences success or failure in the classroom	• Realization that behaviors in the classroom have underlying causes that teachers are not trained to identify, and the resulting desire to receive more training from therapists • Perceiving medical and educational models as being symbiotic, rather than opposing models for viewing children holistically • Watching therapists in the classroom increased teachers' awareness of the valuable contributions therapists make for all students, and led to teachers wanting therapists in their classrooms on a regular basis rather than having therapists pull out students • Policymakers assume that teachers make excuses for why children struggle in the classroom; this shows the need for greater understanding regarding children's learning readiness and developmental skills

Source: Developed for this research.

4.3.3.2 Worldview layer: Interpretation

It is within the worldview layer that teachers' and therapists' assumptions, perceptions, and personal views relating to their collaborative relationships reveal the true value of working in pairs toward increased understanding of one another's skill sets and the notion of successful collaboration. Comments from the pairs showed measurable shifts from their former ways of understanding to their present appreciation for one another's contributions to educating children within the context of the general education classroom. Within this layer, individuals from two fields with vastly different epistemologies realize the value of collaboration and

unpack their belief systems in an effort to provide exceptional educational opportunities for their students and for one another.

Medical Model Training

Therapists commented that in their training programs, the direct service model (also known as pull-out) provided the main delivery system for therapy services. Through collaborating with general education teachers, the therapists realized the power of working with students with IEPs in the context of their classroom experiences—a very different environment than working one-on-one in a separate room.

Additionally, therapists felt more effective when they helped teachers deal with other general education students in the classroom who did not have IEPs, but needed intervention nonetheless. Several therapists mentioned an example of how providing support for teachers in the classroom grew beyond the borders of special education: by helping one student with an IEP, many other students received support from therapy interventions delivered in the classroom. In turn, students with IEPs became motivated to complete therapy interventions because other students participated in the same activities as students with IEPs. Students with IEPs were not singled out; this is yet another benefit to the classroom-based collaboration model.

Therapists coming into classrooms increased teachers' levels of confidence, lessened struggles with difficult students, increased understanding of sensory needs, and improved students' abilities to access curricula. Prior to therapists coming in to classrooms, teachers commented that the pull-out delivery system kept occupational therapy services a "mystery": teachers didn't know what therapists did, and thus did not notice how the effects carried over into the classroom.

Therapists related their experiences of letting go of the medical model hegemony. While all therapists stated that the medical model is a well-respected health service delivery system in hospital settings, the therapists' training in the medical model often contradicted the realities of the classroom. Therapists observed many variables in the classroom foreign to medical model training such as frequent schedule changes, children with extended absences, daily

interruptions in the classroom, and limited time to follow through on therapy protocol recommendations that worked clinically but not in the classroom. As a result, they experienced difficulties due to not being able to use a medical perspective when seeing students with needs commonly addressed in the occupational therapy realm, but not necessarily related to students accessing curricula. The therapists described letting go of the medical model and wearing the "school-based hat" to collaborate more effectively.

Through collaboration, therapists controverted the medical myth that students can be "fixed" once weekly or even once monthly using the direct service model. The therapists mentioned time constraints under a direct service model that limited time to work with students; they circumvented this problem by embedding their practices into teachers' daily routines. In fact, the crossover between therapy and teaching went both directions—therapists commented on thinking "more like a teacher now" instead of being just the "fun OT." By focusing on teachers' needs and meeting classroom goals, therapists reported feeling more significant in their roles and having a greater impact on students accessing academic curricula.

As a result of working with teachers and students in the classroom, therapists discovered that teachers needed more training in therapy interventions in order to fully understand how therapists' skill sets support and compliment teachers' skill sets. In agreement with therapists, teachers realized the need for more training in behavior interventions and sensory processing; in fact, many teachers stated that *all* teachers entering the profession required more training in these areas. As a result of collaboration, teachers expressed an increased appreciation for what therapists do, and how their knowledge can be applied to support teaching efforts in the classroom.

Though therapists showed skepticism of the medical model hegemony, teachers viewed medical and educational models as not being contradictory entities, but rather complementary models that can work together effectively for a holistic approach to a child's growth. The teachers expressed appreciation for therapists' medical backgrounds, and the value that expertise brings to the classroom setting. Due to the fact that teachers do not have training in therapy areas, they perceived that therapists have a different perspective and see things that

teachers do not see. The ability to bring different and complimentary perspectives to a collaborative relationship is a valuable one indeed.

More Difficult, but More Effective

Therapists found that going into classrooms to provide services was more difficult than expected; however, the better results achieved by doing so made the difficulty worthwhile. By going into classrooms, the therapists increased their understanding of integrating academics into therapy techniques in order to enhance both. Therapists regarded pull-out and small groups as easier to handle, but less effective in terms of impacting academic skills in the classroom. The design of the medical model, the therapists shared, was more conducive to one-on-one and small group therapy than classroom environments. After collaborating in the classroom, therapists reported being more confident working with larger groups of students.

Teachers discussed the "mystery" behind what therapists did in pull-out sessions, stating that they lacked understanding of the occupational therapy profession. After collaborating with therapists in the classroom, the teachers' worldviews of therapists changed, in that they realized the enormous impact therapists' skill sets have on classroom management and behavior. For example, teachers perceived their lessons as lacking when children did not respond positively; with input from therapists, teachers increased awareness of the gaps in training and realized that the lack of responsiveness from students was not due to lack of a cohesive lesson, but primarily due to behavior outside their expertise.

Respect for One Another

Therapists expressed increased respect and appreciation for teachers after seeing their intense workload on a daily basis. Therapists viewed themselves as less skilled than teachers at managing large groups, and as a result of classroom collaboration, therapists discovered a new appreciation for the organizational skills of teachers. Prior to working in classrooms, therapists perceived the education model as random and "all over the map"; increased familiarity led to appreciation of the finer points of the model, as well as its cohesive strengths that weren't initially apparent. Together, the pairs let go of assumptions about their

roles in the classroom and created mutually beneficial relationships, learning from one another and growing in their appreciation and understanding of each other's skill sets.

From the therapists' medical model worldview, the classroom is a place filled with randomness and uncontrollable variables. Despite being trained in a medical model and preferring a positivist approach to intervention, therapists obviated the medical model hegemony by working with teachers to solve problems within the context of the classroom setting. Until therapists realized and released their assumptions that the medical model reigned superior over the educational model, collaboration remained limited. A challenge discussed by many therapists included how to use medical-model-based interventions— designed for clinical practice—in the classroom setting. Ultimately, therapists relied on teachers to provide guidance in bridging clinical practice and classroom instructional practice.

Defining The Term Behavior: Clinical Versus Education Perspectives

During the interview process, the researcher noted that teachers and therapists used the term "behavior" differently. Teachers, generally spoke of behavior as it relates to any challenges in the classroom affecting the teacher's ability to teach or the student's ability to grasp curricula. The therapists preferred using more clinical terminology when referring to behavior observed in the classroom. The researcher posed questions to ascertain the pairs' perceptions and assumptions relating to what the teachers and therapists meant when using the term behavior. Interestingly, teachers and therapists defined behavior differently from one another.

Therapists generally categorize behavior into subsets of observable traits; one subset is behavior related to the sensory system. As discussed earlier, therapists reported teachers needing more training in sensory processing theory and interventions to understand the "why" behind certain behaviors exhibited by students in the classroom. Therapists shared that they were hesitant to use the word "sensory" when categorizing behaviors observed in the classroom; the concern was that, ultimately, using the word sensory created barriers to mutual understanding and collaboration involving strategies to improve sensory-based behavior issues due to teachers' limited knowledge about sensory processing and its affect on classroom performance.

For teachers, the term "behavior" simply meant *any* observed difficulty in the classroom that negatively impacted students accessing curricula, focusing in class, or completing tasks. Teachers had little distinction between the terms "behavior" and "sensory," generally speaking, unless they had received additional training in sensory processing or had a family member with sensory processing issues. After working with therapists in the classroom, teachers developed an increased understanding of how underlying causes, such as sensory issues, impacted classroom behavior. The teachers' worldviews shifted to include the possibility that sensory-based behavior requires specific types of intervention, rather than assuming that all behavior responds to the same "one size fits all" strategy.

Teachers shared feelings of inadequacy for not reaching students. As discussed earlier, teachers attributed students' poor behavior to weaknesses in lessons. While working with therapists in an environment of support and respect, teachers exchanged having to "know it all" for an attitude of "let's solve this together." With the therapists' input, teachers pursued a proactive rather than reactive response to behavior issues.

Policymakers' Assumptions, Perceptions, and Worldviews, According to Pairs

Teachers and therapists jointly agreed that policymakers needed to be more informed about the developmental needs of children, as well take into account brain research when crafting policies. When discussing policymakers, pairs referred to federal- and state-level officials; they expressed concern over a general incongruence between policies affecting teaching of children and the lack of regard for developmental needs, an issue for which there is "no easy fix." The pairs stated that policymakers needed to spend more time "in the trenches" to get a realistic view of the needs of children.

Teachers remarked that policymakers bring a lot of assumptions to their decision-making processes, with a notable assumption being that teachers merely make excuses for why children have difficulties in the classroom. Teachers commented that young children are complex and developmentally unprepared for the level of academic rigor they experience. Teachers provided examples of policymakers' errors, such as: expecting more from children than age appropriate; disregarding Piaget's developmental hierarchy; and missing opportunities to develop the whole child by focusing on only one area to the neglect of

others. Metaphors such as "like potty training before a child is ready" and "kids are in a pressure cooker" illustrated the errors that the interviewees felt that policymakers were committing. Working together, the teacher-therapist pairs provided support for children experiencing difficulties in the classroom due to developmental readiness challenges; this gave them a unique view of the mistakes enshrined in education policy, and how they could be fixed.

4.3.3.3 Worldview layer: Summary

Teachers and therapists both reported shifts in their individual assumptions, perceptions, and worldviews as collaborative relationships deepened. For therapists, discovering how the medical model limited the ability to effectively collaborate with teachers was the beginning of a transformation in their professional approach.

Once therapists rejected the primacy of the medical model, they created systems that supported their relationships with teachers. Outside a designated framework, therapists realized the need for change. Only by realizing how their worldviews affected their ability to collaborate did therapists become open to the possibilities housed within the classroom.

Teachers, embracing the symbiotic relationship between the medical and educational models, understood the important contributions therapists bring to the classroom and created an open-door policy for therapists as a result. Together, the pairs embraced the benefits and contributions inherent in the balance between medical and educational models; as a result, they were able to provide holistic interventions and instruction for children in the classroom setting.

Teachers and therapists alike commented that policymakers lack understanding regarding the developmental needs of children; nonetheless, the pairs overcame policy-level impediments by collaborating to create successful partnerships that supported a holistic service delivery model benefitting the students they served.

Key insights:

> Therapists related their experiences of letting go of the medical model hegemony
> while teachers expressed their appreciation for the skill sets of therapists trained
> within the medical model; together the pairs learned how to blend the best of both
> models in an effort to provide the best outcomes for their students.
>
> Therapists created systems that supported their relationships with teachers after
> rejecting the primacy of the medical model and providing services within the
> classroom environment; as a result the teachers reported an increased awareness
> the therapists' skills and the benefits of having therapists support in the classroom.
>
> Therapists realized the power of working with students with IEPs in the context of
> their classroom experiences and appreciated teachers assisting with modifying
> individual activities for broader use in the classroom.
>
> The pairs realized the need to clarify terminology—most notably defining the
> terms "behavior" and "sensory" when discussing challenges with students in the
> classroom, as well as being cognizant of one another's jargon common to their
> respective disciplines.

The litany layer examined the surface or unquestioned views of the pairs' reality regarding their collaborative relationships. Within the systemic layer, identification of how the system supported or limited the pairs deepened understanding of systemic influences on the pairs' collaborative efforts. The worldview layer unpacked assumptions, perceptions, and worldviews of teachers, therapists, and policymakers. Having gained insights within three layers, the fourth and final layer of analysis is the myth and metaphor layer.

4.3.4 Myth and metaphor layer

Within the deepest CLA framework layer, participants interpret the meaning underlying their collaborative relationships by using myths and metaphors. CLA includes the metaphorical dimension assuming that there are different views of reality and ways of knowing and these are cognitively constructed as a life narrative, or the 'stories which we live by'. By deconstructing commonly used metaphors and exploring alternative metaphors, individuals

who see the world differently from one another may find common ground and ultimately create transformative spaces for change (Inayatullah, 2004).

4.3.4.1 Myth and metaphor layer: Results

The following table, Table 4.4, summarizes interview responses from the teacher and therapist pairs across several categories within the CLA framework, the myth and metaphor layer.

Table 4.4: Responses within the myth and metaphor layer

Occupational Therapists' Responses	General Education Teachers' Responses
DISCUSSION	DISCUSSION
Medical Myth Of Fixing • Medical "myth" of "fixing" a subject weekly or monthly with therapy is widespread • Medical model is held in higher esteem than educational model: therapists get paid more than teachers, and the fact that doctors prescribe therapy services indicates that they respect the profession • Medical world is more concrete, with a lot more control over extraneous factors • Policymakers think all children are developmentally ready to handle the same level of academic rigor; according to policymakers, developmental skills do not affect academic skill acquisition	**Mainstream Public Belief That Anyone Can Teach** • Medical model is held in higher esteem; however, teachers reported that medical and educational models were complimentary despite the medical model's perceived hegemony • The mainstream public belief that anyone can teach leads to many misconceptions about the teaching profession • Fixing children with the medical model, rather than the educational model, is more valued by parents of children with special needs • Misinformation makes people not respect teachers—factors such as hunger, poverty, abuse, and behavioral issues negatively affect education and are all beyond our control; we are not a nation of failing schools, we are a nation trying to adapt and modify to an ever-changing world • Policymakers think every child starts at the same point and there is no need to provide developmentally appropriate curricula; just aim high and the child will

	achieve (regardless of the child's developmental state); little policymaker regard paid to the amount of stress this puts on the child and those teaching the child • Medical model applied to schools using positivist approach to testing will fix the problems in schools
Metaphors Prior to Collaborating • "Baptism by fire" • "A spider web" (referring to the educational model being wide with strands reaching out in many directions) • Medical model is linear, going from point A to point B, with tangible results; the educational model is abstract and not linear • "Throwing the baby out with the bath water" (referring to an all or nothing model, either all direct service or all classroom consultation) • Teachers believe sensory processing intervention is the "easy way out"	**Metaphors Prior to Collaborating** • The "great mystery" (referring to what therapists do when they pull children from the classroom) • "Hitting my head against a wall" • "One is the loneliest number" • Therapists and teachers don't "speak the same language" • Therapists have a "filing cabinet" in their heads consisting of files with complex labels when it comes to behavior
Metaphors: The Need for Medical and Educational Models to Create Wholeness and Balance • "On the same page," "arrows going in the same direction," "targeting the same thing from different angles" • Food metaphors included: "Sugar in your lemonade," "good frosting on a cupcake," "Meat Loves Salt" (reference to a book with that title), "apple cut in half and then put back together to get the whole thing," "peanut butter and jelly that go much better together than separately" • Other metaphors included: "Like a rollercoaster ride with all of us on the train	**Metaphors: Finding the Missing Pieces and Perfect Blend of Skill Sets** • Food metaphors included: "A salad mixed together with the right dressing," "hot fudge sundae with different ingredients that when blended together tastes better than each individually," "chips and salsa," "coffee cake to go with a perfect cup of coffee" • Other metaphors included: "Building a building," "a puzzle with all the pieces fitting together," "a dance or ballet," "like vitamins that need to be taken every day," "different colored human beings holding hands," "two heads are better than one," and "like Christmas in April"

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working together with our hands up saying, 'Woo-hoo!'" "like going to the gym for half an hour a week but eating anything I want the rest of the week would be silly to think there would be results" (metaphor for pull-out model), "like a garden with different flowers and plants," "two minds connecting with speech bubbles with smiles in them," "sharks swimming with the pilot fish following and working together to get to food," "two oxen deep in the trenches with each one pulling their share, focusing on the same agenda to be effective," "teamwork like a football team"	
Cultural Imbedded Stories • Hansel and Gretel, where two children have to survive by working together and bible stories relating to one owns partnership with God first and then disciples working together in collaborative relationships to share the word of God • Bible stories relating to one's own partnership with God first, and then disciples working together in collaborative relationships to share the word of God	
SUMMARY **Common Myths and Metaphors**	**SUMMARY** **Common Myths and Metaphors**
• The medical myth of "fixing" students • The myth in the United States' culture that the medical model reigns superior to the educational model • The myth among policymakers that developmental skills have no relationship to academic skills • The positive metaphors depicting the symbiotic relationship between the therapy and education fields	• The myth that anyone can teach • The myth that a positivist approach to testing children leads to improved academic skills • The myth of failing schools • Metaphors depicting two elements that work better together than individually

Source: Developed for this research.

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4.3.4.2 Myth and metaphor layer: interpretation

The myth and metaphor layer of the CLA framework requires an understanding of how deeply held cognitive myths and metaphors influence the participants' cognition and behavior discussed within the worldview, systemic, and litany layers.

Within this layer, teachers and therapists reported the myths and metaphors influencing—consciously or unconsciously—the desire to collaborate with one another. The myths, as the pairs discovered, were just that—myths. The myths within the deepest layer were uncovered through the pairs' collaborative experiences. This revealed a deep transformational shift suggesting that rather than better collaboration giving rise to changing metaphors only, individuals' subconsciously change their metaphors to give rise to enhanced collaboration. The cognitive process is therefore cyclical and indicates that shared professional reflexivity at the deepest metaphorical level gives rise to cycles of change, which also challenge commonly held myths. This suggests that for collaborative success to occur, shared professional reflective practice is necessary to achieve meaningful transformation.

Comparing teachers' and therapists' pre- and post-collaborative metaphors provided insights into how deeply-held beliefs changed throughout the process. Metaphors prior to collaborating illustrated distinct divisions between the two professionals; however, as the pairs' collaborative relationships grew, the metaphors changed to depict the benefits of two people from different fields coming together to complement and support one another.

Medical Myth of Fixing

The therapists discussed the medical myth of "fixing" children's issues by seeing them weekly or monthly. The myth of "fixing" is rooted in a medical model approach to solving problems in schools. Despite medical model limitations in the school setting, therapists supported medical model hegemony over the educational model; this support was attributable to the perceptions that therapists get paid more than teachers, and doctors prescribe occupational therapy services due to their respect for the profession.

In light of their collaborative relationships, as well as experiencing firsthand the inaccuracy of the "children can be fixed" fallacy, therapists gradually grew to understand the myths of their profession as just that—myths.

Teachers agreed with therapists regarding the medical model being held in higher esteem; however, teachers reported that the medical and educational models were complimentary, despite the medical model's perceived hegemony. Teachers mentioned that parents of children with special needs believe in the medical model myth of "fixing," and value the medical model more than the educational model.

Just as therapists mentioned the myth that their profession "fixes children," teachers discussed the common myth from the mainstream public that "anyone can teach." This myth leads to many misconceptions about the teaching profession, according to the teachers interviewed. The teachers shared the perception in society that teaching does not require unique skill sets, which in turn leads to diminished societal respect for the occupation. Teachers argued that external factors negatively influenced education; problems such as hunger, poverty, abuse, and certain behavioral issues are all beyond a teacher's control. The medical model supports therapists and reinforces the belief that therapists can fix children; in contrast, the educational model reinforces a cultural belief that "anyone can teach" because educating children is not as complex as healing the sick.

Another myth teachers shared was that the United States is a nation of failing schools. Teachers stated that the United States is not a nation of failing schools—it is a nation trying to adapt to an ever-changing world. Unlike the medical model myth of a linear, cause-and-effect approach to a problem, there is no linear fix to most educational problems, which are complex and contain many variables.

According to the teachers, policymakers think every child starts at the same point, and thus there is no need to provide developmentally-appropriate curricula. Therapists agreed that policymakers think all children are developmentally ready to handle the academic rigor and that developmental skills have no impact on academic skill acquisition. Another myth, "just aim high," leads the public to think that a child will achieve no matter the child's socio-economic status, family support, or developmental readiness. The teachers commented that

the positivist approach requires constant testing of children with no regard to their developmental readiness; a more appropriate strategy would involve a holistic approach to educating children in order to meet diverse needs born of diverse backgrounds.

Metaphors

Prior to collaborating, therapists used a variety of metaphors to describe their relationships with teachers: "baptism by fire"; a spider web (referring to the educational model casting a wide web with strands reaching out in many directions); throwing the baby out with the bath water (referring to an all-or-nothing model, whether it be exclusively based on direct service or exclusively based on classroom consultation); teachers believing sensory processing intervention is the "easy way out"; and teaching being "all over the map."

On the other hand, pre-collaboration teachers used different metaphors to describe their relationships with therapists: a "great mystery" (referring to what therapists do when they pull children from the classroom); "hitting my head against a wall"; not "speaking the same language"; and therapists having a "filing cabinet" in their heads consisting of files with complex labels for different behaviors.

Metaphors after collaborating were drastically different, which reflected the pairs' positive experiences and consistently described symbiotic relationships depicting two models coming together to create something better than what could be created within the individual models. Generally, metaphors between pairs evoked positive images representing two being better than one, or a blending of skill sets to create something greater than the sum of the parts. A few of the researcher's favorite metaphors included, "Like a rollercoaster ride with all of us on the train working together with our hands up saying, 'woo hoo!'" "chips and salsa," and "coffee cake to go with a perfect cup of coffee"

4.3.4.3 Myth and metaphor layer: Summary

At the myth and metaphor layer, therapists and teachers explored myths personally held about each of their professions. The medical myth of being able to fix children led therapists to explore their worldviews regarding medical model hegemony in the United States. Chief among the therapists' myths was the educational model being less effective due to its lacking

a positivist approach to measuring and quantifying human behavior in the classroom setting. Unpacking and understanding these myths became necessary for the therapists to develop collaborative relationships with teachers.

For teachers, the myth that anyone can teach led to a discussion regarding society's view of teaching as a profession. The teachers agreed with the medical model's hegemony, citing examples of policymakers designing positivist testing measures without taking into account the variables inherent in working with human beings. Therapists, indoctrinated in medical model, realized that within the classroom the medical idea of fixing children is a myth. Through collaboration, the therapists learned that the medical model fails to deliver as designed due to real-world variables, and the teachers demonstrated to the therapists that it takes a definitive set of skills to teach.

The pairs transformed their thinking to make the system work, rather than trying to fit into a system that did not work. The pairs' engagement at deeper layers became the necessary catalyst to transform practice. The metaphors changed as the pairs shifted their worldviews and assumptions. Initially, the interview data was analyzed moving down through the layers.

Key insights:

> A deep transformational shift suggested that the pairs subconsciously changed their metaphors to give rise to a system that enhanced collaboration.
> Shared professional reflective practice is necessary to achieve meaningful transformation and overcome reported barriers to collaboration.
> According to the pairs, the myth of failing schools is underpinned by policymakers' myth that all students come to school with the necessary developmental foundations to achieve in a rigorously demanding system.
> The pairs transformed their thinking to make the system work for themselves and their students, rather than trying to fit into a system that did not work.

After all layers are unpacked, the relationship between the deepest layers and the surface layers unfold. In order for the pairs to report success at the litany level, they had to explore myths and metaphors affecting their worldviews. As the pairs' myths and metaphors became

indicative of symbiotic relationships and two fields working better together than separately, the pairs' worldviews changed as they let go of preconceived assumptions and perceptions about one another's professions and discovered how best to work together in educational settings.

With worldviews supporting the value of collaboration, the pairs' found ways to make the system work and enable their collaborative relationships. In the absence of a framework, the pairs' intuitively created space for transforming their relationships by negotiating often reported barriers to collaboration. As a result, within the litany layer, the pairs' defined the term "collaboration" and reported numerous attributes underpinning their successful collaborative relationships.

4.4 DISCUSSION

Analyzing the pairs' collaborative relationships using CLA provided deep, rich understanding of the phenomenon of therapist-teacher collaboration, with a particular focus on how therapists and teachers successfully collaborated with one another inside the classroom. Table 4.5 compiles summaries from each of the layers. The discussion compares these findings to the research findings presented in Chapter 2, the literature review. Comparing findings with current research provides insights into the phenomenon. The discussion comprises two sections: the first section highlights how the findings of this study align with or contradict current research, while the second section describes insights gained from the study, along with potential contributions to the current body of knowledge.

Table 4.5: Summary of four CLA layers

SUMMARY FOR FOUR CLA LAYERS	
Therapists' responses	**Teachers' responses**
Litany Layer • Flexible relationships with teachers created safe, non-judgmental, risk-free environments to grow with teachers	**Litany Layer** • Letting go of "having to know it all" and opening their rooms to therapists created a space where the medical and educational models morphed into a blended model of

• Teacher-focused approach, rather than IEP goal-focused approach, allowed therapists to better meet the needs of the teacher as opposed to meeting the needs of data collection • Details regarding scheduling and rules for interaction varied between pairs, with therapists yielding to the preferences of the teachers and appreciating open invitations to come into classrooms as their schedules allowed • Success achieved when therapists observed teachers and students using techniques on their own, and when receiving positive comments from administration and staff regarding improvements in behavior or academics	techniques born out of flexibility, trial and error, sharing ideas, and respecting one another's skill sets • Success measured by ease of implementation, improvement in academic areas, improved focus for students, and increased student independence in using techniques • Appreciation of therapists' abilities to provide developmental intervention for struggling students while reducing the stress teachers experienced resulting from lack of outside support, despite continually increasing academic demands from administrators • Therapists perceived as a friend who is there to support, nurture, and positively impact the teachers' and students' lived experiences in the classroom
Systemic Layer • Administrators with a special education background were most likely to support therapists working in classrooms; this arrangement created opportunities for therapists to train teachers, though training varied in design based on time and resources available • In the absence of a clear model to achieve successful collaboration, therapists relied on their own individual interpretations, commitments, attitudes, and behaviors to pursue collaboration • Increased training and mentoring were found to be more closely associated with collaboration success than a clearly defined model	**Systemic Layer** • Teachers rallied support for collaboration through enthusiasm, reporting positive outcomes, and convincing administrators that therapists offered value in meeting student goals • Despite therapists' lack of inclusion in intervention models, the teachers valued the support and contributions, considering their collaboration as a "trial" to determine if therapists should be included in intervention models • Teachers valued training from the therapists, and credited this training with an increased ability to communicate with therapists and understand how therapy interventions supported student goals

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• Despite many factors limiting therapists' abilities to collaborate with teachers, therapists negotiated barriers despite the absence of a functional model through their own initiative	• Despite many factors limiting collaboration, the most notable limitation focused on general education being excluded from special education meetings and trainings, thus limiting general education teachers' abilities to proactively create positive classroom environments that provide a broad range of intervention and support needed to help all children access curricula
Worldview Layer • An important milestone for therapists was reaching an understanding that the medical model approach is designed for one-on-one therapy, rather than classroom support • Therapists came to the conclusion that direct service and small group interventions are easier, but less effective in terms of providing support for all students in the classroom • Important to clarify assumptions regarding how teachers and therapists view the term "behavior," as well as causes of certain behaviors • Therapists felt policymakers lacked awareness regarding children's developmental needs, which can influence success or failure in the classroom	**Worldview Layer** • Teachers came to the realization that behaviors in the classroom have underlying causes that they are not trained to identify; this resulted in the desire to receive more training from therapists, who can better identify and help with those behaviors • In general, teachers perceived medical and educational models as being symbiotic rather than opposing models; taken together, they provide a more holistic picture of children • Experiencing therapists in the classroom increased teachers' levels of awareness of the valuable contributions therapists provide for all students, and led to teachers wanting therapists in their classrooms on a regular basis rather than having therapists pull out students • Teachers noted that policymakers assume teachers make excuses for why children struggle in the classroom; this shows the need for increased understanding regarding children's learning readiness and developmental skills
Myth and Metaphor Layer: Common Responses among Therapists • The medical myth of "fixing" students	**Myth and Metaphor Layer: Common Responses among Teachers** • The myth that anyone can teach

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• The myth prevalent in the United States that the medical model reigns superior to the educational model • The myth among policymakers that developmental skills have no relationship to academic skills • The positive metaphors depicting the symbiotic relationship between the therapy and education fields	• The myth that a positivist approach to testing children leads to improved academic skills • The myth of failing schools • Metaphors depicting two elements that work better together than individually

Source: Developed for this research.

4.4.1 Alignment with Current Research

Moving up through the CLA layers, the teacher-therapist pairs negotiated their relationships by understanding the myths in each profession and creating metaphors that supported positive collaborative outcomes, thereby challenging their own assumptions and worldviews. In doing so, the pairs created a transformative space for change while collaborating outside legislative frameworks. The pairs' experiences reflected successful collaboration outcomes as described by the multidisciplinary work of Thomson and Perry (2006) including goal achievement, transformation of relationships, valuable new partnerships, and collective action that solved problems that neither could solve individually.

4.4.1.1 Defining and measuring collaboration: By definition, did the pairs collaborate?

Definitions of collaboration provided by therapists aligned with definitions provided by the health science field; however, teachers' definitions did not align with current definitions in the education field. In combining the definitions provided by pairs, a new definition emerged based on the experiences of the pairs. From the study results, collaboration is defined as follows:

> A voluntary evolving process through which parties who see different aspects of
> a problem work together and support one another by sharing ideas, participating

in joint activities, and building on one another's expertise to achieve common

goals beyond what could be accomplished individually.

The literature review discussed terms used to describe collaborative relationships, which included interorganizational collaboration, interprofessional collaboration, transdisciplinary collaboration, multidisciplinary collaboration, and interdisciplinary collaboration (refer to Table 2.2).

Based on the descriptions of each of these terms, the pairs' experiences align with transdisciplinary collaboration, which is "the sharing and integration of expertise of the team members" (Bell et al., 2011, p. 143). Indeed, the pairs expressed how they appreciated one another's skills sets, and often used the word "sharing" during interview discussions. The therapists mentioned feeling more capable of managing larger groups and integrating academics into their sessions, while the teachers noted their own increased understanding of therapy techniques and therapists' contributions to the classroom when integrated into the daily schedules.

As cited in the literature review, Thomson et al. (2007) expanded on the earlier work of Wood and Gray (1991) to create the Antecedent-Process-Outcome Framework; this encompasses the five dimensions of collaboration: governance, administration, organizational autonomy, mutuality, and norms (refer to Table 2.3).

Though the five dimensions framework is described by Thomas et al. (2007, p. 25) "as rooted in a wide cross-disciplinary body of theoretical literature and substantiated by interviews with organization directors", the results of this study show that therapist-teacher pairs' descriptions of their relationships aligned with the five dimensions framework with the exception of an effective administrative structure to guide their relationships.

Antecedents and outcomes bookend the five dimensions in the literature; in this research, the antecedents and outcomes differed between therapists and teachers. For therapists, antecedents included the therapist observing struggling students or frustrated teachers while on school campuses, teachers asking for help, and influential staff members (administrative) recommending occupational therapy support for teachers experiencing difficulties with

student behavior. For teachers, antecedents included: feeling stressed over mandates such as Ohio's "Third Grade Guarantee"; Common Core State Standards (CCSS); students falling behind; and increased prevalence of behaviors associated with Attention Deficit Hyperactivity Disorder (ADHD) or dyslexia with no other adults to help in the classroom.

Outcomes for therapists included observing students' focus improving, witnessing teachers and students using therapist-directed interventions on their own, and supervisors acknowledging improvement in the classroom due to the therapists' mentorship.

Outcomes for teachers matched therapists' outcomes in terms of observing improvement in students regarding focus and accessing curricula. In addition, teachers observed students using the therapist-directed interventions on their own or asking for interventions when the need arose in the classroom.

Revisiting the literature review, a study by Bedwell et al. (2011) defined the elements of collaboration through compiling and condensing information from multidisciplinary research. The authors reviewed multidisciplinary definitions and created a definition from five key findings across disciplines:

1) collaboration is an evolving, engaging, dynamic process; not static
2) collaboration requires interaction between entities (individuals, teams, units, departments, functional areas, and organizations)
3) collaboration requires reciprocity, whereby both involved parties actively participate in the process with no one party controlling the other
4) collaboration, despite differing goals across disciplines, requires joint activities, input from all parties, and participation in the decision-making process
5) collaboration as a process requires at least one shared goal, and at times must resolve conflicting goals in order to agree on at least one shared goal (Summarized from Bedwell et al., 2011).

The results of this study uncovered elements of collaboration that expands the five key findings by an additional three findings including:

    1) collaboration as a process requires creating an atmosphere where both parties experience being supported by one another

    2) collaboration is a process where individual skill sets are valued and shared in order to expand the knowledge base and transfer skills from one party to the other

    3) collaboration requires individuals to explore assumptions, worldviews, myths, and metaphors to create deep transformation change in relationships.

This discussion now expands from defining collaboration and elements of the collaboration process to how the pairs measured successful collaboration compared to how successful collaboration has been reported in the literature.

4.4.1.2 Successful collaboration: How did the pairs compare to current research?

The literature review described successful collaboration as reported in the health science field generally, and in the occupational therapy field specifically. Additionally, a discussion included successful collaboration in the education field, specifically special education.

Successful attributes reported in health science studies that aligned with the pairs' responses included:

1) understanding and appreciation of others' roles
2) motivation for change
3) demonstrating a gap between desired and actual practice
4) shared vision and purpose
5) collaboration as a process including sharing ideas
6) mutual behaviors including partnership, interdependency, and capacity development
7) transition from a multidisciplinary model (team members working in parallel with no joint goals) to a transdisciplinary model (team members sharing expertise and learning from one another as they focus on joint goals)

Successful attributes reported in occupational therapy research that aligned with the pairs' responses included:

1) building relationships in inclusive classrooms

2) providing services that benefited every child in the classroom

3) capacity building through collaboration

Successful attributes reported in education research focused only on co-teaching models. The pairs did not use co-teaching models in their collaborative practices. If co-teaching was mentioned during the interview process, it was within the context of how the therapists or teachers work with special education teachers. Within the general education context, there is no model that describes the pair's collaborative practices, nor does the research highlight successful practices within the general education classroom where the emphasis is on transdisciplinary collaboration rather than co-teaching. This study confirms the attributes reported in the above prior studies and expands the knowledge base to include new insights that differed or were not reported in prior studies.

4.5 NEW INSIGHTS TO CURRENT RESEARCH

The pairs participated in collaborative relationships beyond the scope of current research. Though collaboration is considered best practice, little evidence exists in the literature to describe the elements of successful collaboration between occupational therapists and general education teachers. Table 4.6 shows a comparison of examples of school-based collaboration and examples the pairs' discussed during the interview process. Pairs did not categorize their collaboration experiences using the terms "team supports," "hands-on services," or "system supports" (Hanft & Shepherd, 2008). However, the descriptions of collaborative activities implemented in the classroom setting align with examples provided within the three categories.

Table 4.6:

Comparison of pairs' collaborative activities to examples of school-based collaboration

SCHOOL-BASED COLLABORATION	PAIR'S COLLABORATIVE ACTIVITIES
Hands-On Services: In context school activities and routines	
Academic (learn and express knowledge)	Yes

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Nonacademic (activities for daily living, class jobs, student roles)	Yes
Extracurricular (sports, drama)	No
Prevocational/vocational: job skills, transportation, communication	No
Out of Context (separate from schools and routines)	No
Team Supports	
Co-teaching	Yes, but not recognized as such
In-services or workshops	Yes
Collaborative consultation	Yes
IEP meetings	Yes
Pre-referral screening	Yes
Progress monitoring	Yes
Mentoring team members	Yes
Communication with community OT-PT	No
Response to intervention (RTI)	Yes
System Supports	
Professional development	Yes
Task forces	No
Program evaluation	No
School policies and procedures	Yes
Curriculum committees	No
Drafting state or district OT guidelines	No
OT supervision or mentoring	No

Source: (Summarized from Hanft & Shepherd, 2008, p. 5)

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As Table 4.6 depicts, the pairs' participated in school-based collaboration in all three categories including hands-on services, team supports, and system supports. Based on the experiences of the pairs, therapy examples of school-based collaboration in the categories of hands-on services and team supports worked well for the pairs' working together in the classroom. The pairs' collaborative relationships enhanced the school climate for all students and built capacity between professionals with complimentary skill sets, and overcame many barriers frequently reported in the literature.

As noted in the CLA tables previously discussed, the pairs' responses differed dramatically from the responses in the Bose and Hinojosa (2008) study. The pairs reported their collaboration as successful despite what research reports as the requirements for successful collaboration. For instance, the pairs had little time to plan due to busy schedules. They negotiated this barrier by agreeing that "drop in," "on the fly," and "casual communication" worked as acceptable means to collaborate. This is the reality of busy therapists and teachers; the pairs accepted the reality instead of seeing it as a barrier. In addition, the pairs reported brief visits as being effective—in one case, five-minute introductions at staff meetings led to teachers inviting therapists into their classrooms.

Research from the field of occupational therapy reported findings that primarily described the collaborative encounters as one-sided, meaning that the therapists provided the support for teachers and transferred their knowledge to the teachers. The findings from this study showed that the teacher-therapist relationship as a truly symbiotic one with teachers and therapists mutually supporting one another and transferring skills between one another. For example, therapists in the classrooms learned how to manage larger groups, modify their activities for group participation, and increased their confidence teaching in classrooms.

Many attributes of successful collaboration reported in prior studies in the fields of occupational therapy and education focused primarily on issues at the litany or systemic layers of the CLA framework. This study provided deeper insights within the all layers in order to understand how the pairs were able to create successful collaborative partnerships in general education classrooms despite the absence of clear guidelines, a supportive framework, or theoretical models to guide them.

New insights gained are as follows:

> The support and transference of skills moved back and forth between the pairs with neither maintaining a hegemonic role in their relationships—learning together, the pairs created symbiotic relationships benefitting one another.
>
> Despite the reported barriers to collaboration, the pairs created systems to overcome barriers by being flexible with scheduling, embracing informal communication methods, limiting discipline-specific jargon, creating risk-free environments, and affirming a deep respect for one another personally and professionally.
>
> The pairs' relationships involved understanding at a deeper level how the system did not support their needs; working collaboratively outside the boundaries of the system, they were able to create a system that produced outcomes the pairs valued.
>
> The pairs successfully collaborated due to engagement at a deep level—exploring their worldviews, assumptions, myths, and metaphors.

Through the use of CLA methodology, deeper understandings surfaced regarding how the pairs created successful collaborative relationships. The literature, to date, reports primarily at the litany or systemic layer. In order for the pairs to report positive outcomes, they dealt with myths commonly held in their professions, unpacked assumptions, widened worldviews, and ultimately transformed their relationships by embracing their complimentary skill sets.

4.6 ANSWERS TO RESEARCH QUESTIONS

CLA methodology afforded answers to the research questions by providing deep insight as to how the teacher-therapist pairs created successful collaborative relationships within the context of the classroom setting. By referring to the descriptive CLA charts presented at each layer, answers to the research questions are summarized below.

In order to answer the research question, four sub-questions sought to provide deeper insights using CLA methodology. The sub-questions answer the over-arching question in detail.

Sub-Question 1: How do teacher and therapist pairs describe their collaborative relationships while working together in an inclusive general education classroom?

The therapists and teachers worked together to create safe, non-judgmental, risk-free environments. Therapists focused on teacher goals rather than occupational therapy goals. Teachers created an inviting space for therapists in the classroom, and together the pairs learned and improved their practices through equal contributions. Over time their relationships grew, as did their appreciation for one another's unique skill sets; these combined skills supported all of the students in the class, not merely special education students or students with IEPs.

Therapists measured success by seeing the teachers and students using therapist-directed strategies on their own, as well as by receiving positive comments from staff regarding improvement in student academic skills and behavior.

Teachers measured success by observing improvement in student behavior and academic skills, children using the interventions independently, ease of implementation, and developmental needs being met.

Together, the pairs intuitively participated in action research cycles—if not by name, then by example. As discussed earlier in the litany layer section, their collaborative efforts transformed their relationships, increased their understanding of how working with one another improved practice, and led them to realize how context and specific conditions shaped their relationships. The pairs changed their practices and, as a result, participated in what Kemmis (2007) describes as "a practice-changing-practice" through their process of working together in the classroom. Through collaboration, pairs focused on global goals of improving classroom climate and creating a supportive school culture, as opposed to more narrowly-tailored goals such as individual IEP or student goals.

Together, the pairs negotiated many of the commonly reported barriers to collaboration by being flexible and allowing both informal communication and impromptu meetings by the therapists as their schedules permitted.

Therapists appreciated teachers making their needs known, which in turn allowed the therapists to be proactive when responding to the teachers' and students' needs. With short bursts of communication in the lunchroom, after lessons, in the hallways, before school, or after school, the pairs strengthened their bonds and ultimately developed lasting friendships.

Sub-Question 2: What in the system is enabling or limiting more successful collaboration?

Administrative support empowered collaboration, as pairs felt safe to collaborate and be seen doing activities that on the surface may not be perceived as "academic." Administrators with a special education background were most likely to support and encourage collaboration between the pairs. Teachers maintained or garnered support from administrators by being enthusiastic, reporting positive outcomes, and expressing how much they valued therapists in their classrooms.

Despite the lack of a clear model for therapist-teacher collaboration in the general education setting, the pairs intuitively designed successful systems to support collaborative efforts. Training from the therapists positively impacted collaboration in the absence of an effective model; whether short introductions at staff meetings or longer half-day in-services, the training was as varied as the collaborators' schedules. Some teachers met with therapists on their own time to receive training, while other therapists reported providing "mini-in-services" in the classroom. Training reduced barriers often reported in literature. Teachers reported therapists being hesitant to overload their trainings with medical terminology; by keeping the language "classroom friendly," therapists found more common ground with teachers and better communicated their ideas. During training, teachers learned activities that the pairs used jointly in the classroom. Teachers appreciated gadget-free activities that were easy to implement and did not require monitoring.

Teachers and therapists reported factors limiting collaboration; however, the pairs maintained and improved their relationships despite limitations. Limitations included administrative focus on academics, policymakers' lack of knowledge regarding the role of developmental skills in academic skill acquisition, and repeated testing of students.

Though pairs mentioned confusion regarding RTI frameworks, collaboration occurred despite the confusion. The most notable limitation was general education teachers being excluded from special education meetings and trainings, thus limiting general education teachers' abilities to handle difficult student behavior and academic issues.

Sub-Question 3: How have the pairs' perceptions or assumptions changed due to their collaborative relationships?

Therapists reached an understanding that the medical model approach is designed for one-on-one therapy, rather than in-classroom support. Though therapists reported the direct service model as being easier, collaboration in the classroom was deemed more effective in addressing teachers' and students' classroom goals.

Through interactions with teachers in the classroom, therapists learned how to talk about behavior in a way that positively impacted teachers' perceptions of therapists' roles in providing intervention for behavior issues. Therapists grew in their appreciation for teachers and increased their understanding of the educational model, which is an accommodation model rather than a "fix it" model like the medical model. Prior to collaborating with teachers in the classroom setting, therapists assumed teachers understood that behavior issues have underlying causes, with sensory processing needs being an important component. By working closely with teachers in the classroom, therapists realized that teachers' knowledge regarding causes for behavior issues varied depending on their training and background.

Teachers, through collaborating with therapists, realized that behaviors in the classroom have underlying causes, the identification of which is beyond the scope of the teachers' training. Teachers increased their comfort levels dealing with sensory-based behaviors by therapists modeling intervention strategies in the classroom. As a result, teachers expressed an interest in receiving professional development training from therapists focusing on underlying causes for behaviors and strategies aimed at remediating sensory-based behavior issues.

Teachers perceived the medical and educational models as being symbiotic rather than oppositional; taken together, the teachers found that the models created a holistic way to view children.

Observing therapists in the classroom increased teachers' awareness of the valuable contributions therapists make for all students; this, in turn, led to teachers wanting therapists in their classrooms on a regular basis rather than having therapists pull out students. Prior to in-classroom collaboration, teachers described therapists' jobs as a "mystery."

Sub-Question 4: How do the pairs describe their collaborative relationships using myth and metaphor?

Therapists shared a common medical myth that they are responsible for "fixing" students; through collaboration, they realized that the role of the therapist is to support and accommodate rather than fix.

Therapists and teachers agreed that the medical model is perceived to reign superior to the educational model in terms of value in the United States. This perception encourages the myth that therapists are able to fix children, while the lack of respect paid the educational model gives way to the myth that "anyone can teach." Through collaboration, the therapists realized that it takes a particular skill set to teach, and that fixing children in the classroom was unrealistic and impossible.

Teachers and therapists agreed that a commonly held myth among policymakers is that developmental skills have no relationship to academic skills, and that a positivist approach to testing children leads to improved academic skills. In addition, teachers objected strongly to the myth of failing schools in the United States. A unanimous voice from teachers contradicted the myth of failing schools with the truth of an educational system in constant flux, trying to keep up with the ever-changing dynamics of society.

As the pairs enriched their collaborative relationships over time, the metaphors they used evolved to depict many positive emotions and experiences. Both therapists and teachers agreed that working together far exceeds the ineffective experience of working in isolation.

4.6.1 Summary: Answer to the overarching research questions

Research Question 1: *How and to what extent do general education teacher and occupational therapist pairs in the USA collaborate successfully and to what extent do the*

systems, assumptions, and worldviews enable or disrupt such collaboration in primary school classrooms?

A summary is as follows:

1) The pairs began collaborating due to behavior and academic needs of students in the classroom, a lack of adults in the classroom to support the teacher, and feelings of frustration due to not being able to provide effective intervention for struggling students.

2) The pairs garnered support from administrators by sharing articles highlighting best practices, demonstrating techniques at staff meetings, and expressing excitement about potential benefits.

3) Therapists, through providing training for teachers, created school environments where the pairs jointly used activities in the classroom and enhanced school culture through their collaborative relationships.

4) Outcomes from the pairs' successful collaboration included goal achievement, transformation of relationships, valuable new partnerships, and collective action that solved problems neither could solve individually (Thomson & Perry, 2006).

5) Pairs participated in problem-solving processes similar to action research, though the pairs did not use the term action research during interview conversations.

6) Pairs negotiated barriers often reported in the literature by developing relationships based on individuals being flexible regarding scheduling, respectful of one another's skill sets, creative problem-solvers, and developers of relationships that expanded beyond professional needs to valued friendships.

7) Despite RTI frameworks in place, the pairs reported general confusion regarding how their collaborative efforts fit into the frameworks and whether or not the outcomes from their collaboration qualified as an intervention strategy within framework tiers. The pairs collaborated because it netted the greatest benefits to students, rather than due to legislative framework requiring collaboration.

8) In order to develop successful collaborative relationships, pairs released certain assumptions, perceptions, worldviews, and myths that limited collaboration.

9) Based on the literature review showing a lack of collaboration between teachers and therapists, the extent to which the pairs collaborated exceeded collaboration efforts reported in the research.

Research Question 2: *How and to what extent does the S'cool Moves collaboration training framework integrate relevant theory and meet the needs of stakeholders in the teacher-occupational therapist collaborative relationship?*

The S'cool Moves revised training framework incorporated findings from this research study in order to provide participants with training protocol underpinned by evidence gathered through analyzing data from the eighteen pairs who participated in the study. In addition to analyzing data, relevant theory aligning with the research outcomes merited inclusion in the revised training framework. At the conclusion of each of the ten workshops, attendees completed an evaluation containing ten questions related to the presentation and to what extent the framework met the needs of the participants. As discussed in Chapter 3, the evaluations provided evidence to support the efficacy of the training framework to enhance collaborative practice between the stakeholders in the teacher-occupational therapist collaborative relationship.

4.7 CONCLUSION

This phenomenological study, through the use of CLA methodology, unpacked four interwoven layers to answer the research questions and provide an entry point for further research into how teachers and therapists create successful collaborative relationships within classroom environments.

Thomson and Perry (2006) state that collaboration is process-oriented, nonlinear, and emergent. As individuals collaborate over time, collaboration evolves through the direct interaction of individuals sharing with one another and working together to transform relationships. As described in this chapter, the pairs' collaborative experiences mirrored Thomson and Perry's (2006) observations. "Collaboration is the act or process of 'shared creation' or discovery" (Thomson & Perry, 2006, p. 20). The pairs, working together, created and discovered new ways of understanding one another as individuals and valuing one

another's skills sets as professionals trained in two different models for service delivery. Ultimately, the pairs intuitively transformed their practice through building their collaborative relationships in the classroom environment.

Alignment with current literature was reported including agreement with some but not all elements of the collaboration process, definition of collaboration, and successful attributes of collaboration. This study uncovered additional knowledge in the form of expanding key findings from the original five findings in the work of Bedwell et al. (2011), presenting a new definition through the merging of findings from this study with current definitions of collaboration, and informing practice through key insights that differed or added to the current body of knowledge.

Moving beyond findings at the surface layer or metaphorically, at the tip of the iceberg, this study included questioning strategies designed to uncover, unpack, and understand the nature of the pairs' collaborative relationships by analyzing data within all four interrelated layers. The pairs' ventured into deeper waters and as a result created collaborative relationships that helped them solve challenges that neither could solve on their own. Discovering what lies beneath the surface ultimately contributed to the expansion of knowledge and application of the research to professional practice through the revision of the S'cool Moves training framework.

The insights gained from this study serve to illustrate the value of producing research that uncovers deeper meaning—ultimately making positive contributions to pedagogy and professional practice in the fields of occupational therapy and education.

Bringing CLA into therapy and education pedagogy may further collaboration efforts by providing a mutually recognized starting point for negotiating collaborative relationships between individuals in the two fields. CLA holds promise in the education and therapy fields for qualitative studies to dig deeper and unpack assumptions, perceptions, worldviews, myths, and metaphors that affect members from two different fields working together.

CLA proved a valuable methodology for answering the research questions and providing rich descriptions of the phenomenon of occupational therapists and general education teachers

collaborating within the classroom setting. The literature review presented a gap in research regarding collaboration between occupational therapists and general education teachers. Though both professions stipulate the need for collaboration, there remains a dearth of research focusing on collaboration between occupational therapists and general education teachers working together in classroom environments.

As this chapter concludes, the information gathered becomes the foundation for the revised training framework designed to enhance collaboration between support staff and teachers working in classroom environments. Chapter 5 explains the rationale behind developing the revised training framework, and discusses how the prior training booklet changed due to new information gathered from the research presented in this chapter. Key discoveries and insights from the pairs become the basis for small group discussions and illustrations included in the training framework.

CHAPTER 5

PRESENTING THE PROJECT REPORT

5.1 INTRODUCTION

As is common in work-based projects, the researcher's goal is to solve a problem unique to their professional practice. Chapter 5 explains how evidence extrapolated from the research conducted in this study underpinned the development of a revised training framework for enhancing collaboration between occupational therapists and general education teachers.

The chapter opens with an overview of the scope and aims of the project. Project outcomes are summarized, followed by a discussion regarding how the research influenced the training framework. After developing the revised training framework, the researcher taught workshops throughout the United States utilizing the training framework. In order to determine how well the framework met the expectations of attendees, all those attending the workshops were asked to complete a ten-question evaluation of the course, including an optional comment section. A quantitative data analysis of the evaluations was included in the Chapter 3 discussion. Conclusions are drawn at the end of this chapter regarding the efficacy of the revised training framework.

5.2 PROJECT REPORT

This phenomenological study included interviewing eighteen pairs consisting of one general education teacher and one occupational therapist. The research questions explored the phenomenon of collaboration between the pairs with the aim of providing rich, deep description of the pairs' collaborative relationships. Using Causal Layered Analysis (CLA),

the responses were analyzed in four layers of meaning: litany, systems, worldviews, and myth/metaphor. The resulting data underpinned the revised training framework, which was designed to improve the quality of workshops presented to school support staff—specifically, occupational therapists and general education teachers. The revised training framework formed the basis of the training theory and activities for ten workshops. Evaluations completed by participants in Phase 2 of this study served to measure to what extent the course provided attendees with strategies to enhance collaborative efforts between individuals from various fields within the school system.

5.2.1 Project Aims

The broad aims of this work-based learning project were multifaceted including personal growth as a researcher, contributing to professional practice through the interpretation of rigorous research, and expanding organizational knowledge to reflect the outcomes of this study.

Specifically the project aims were as follows:

- close the gap in research regarding occupational therapist and general education teachers collaborating in the classroom environment
- contribute to the current body of knowledge and professional practice
- design a research study to gather data that answers the research questions
- revise the current S'cool Moves training framework to reflect the research findings
- evaluate the extent to which the revised training framework met the needs of the stakeholders who participated in S'cool Moves training sessions

Background

The education system in the United States has undergone many reforms with the aims of providing the least restrictive environment for children with special needs. Two key legislative mandates include the No Child Left Behind Act and the Individuals with Disabilities Improvement Act. While these mandates make provisions for children with special needs to receive services in the least restrictive environment, evidence suggests that

teachers and support staff are not effectively collaborating in order to create successful inclusive classrooms for children with special needs (Orentlicher et al., 2014).

In an attempt to provide services for children in general education classrooms and reduce the number of students identified for special education, Response to Intervention (RTI) frameworks have become a popular approach for providing early intervention for students with academic and behavioral needs within the general education classroom (Murawski & Hughes, 2009). The aims of RTI are to reform instructional and behavioral strategies for students at risk of being identified with a Specific Learning Disability (SLD), as well as providing intervention for students already identified with an SLD (Murawski & Hughes, 2009).

Keeping with the legislative mandates, schools are encouraged to service students in the least restrict environment and reduce programs aimed at isolating children with special needs from the general education population. Best practice suggests that collaboration among support staff and teachers is the vehicle for servicing students in the least restrictive environment–the general education classroom (Hanft & Shepherd, 2008).

Problem

According to the American Occupational Therapy Association (AOTA, 2013), occupational therapists have specific skills that may help children be successful in general education classrooms. While occupational therapists are generally trained using a clinical model for service delivery, servicing children in the general education classroom within RTI frameworks is new territory for occupational therapists and teachers alike. Occupational therapists must continue to provide services to children with Individual Education Plans (IEPs) while being asked to expand their services to the general education classroom and children without IEPs (Clark & Chandler, 2013). As this is new territory for teachers and therapists, research was needed to increase understanding of how occupational therapists and general education teachers collaborate in classroom settings and inform professional practice.

Aim

This project aimed to expand the research focusing on collaboration between occupational therapists and teachers in general education classrooms, fill in research gaps related to collaboration that were discovered through the literature review process, analyze data to expand the current knowledge base, and interpret the data to make a contribution to professional practice by revising the current S'cool Moves training framework based on the research findings.

5.2.2 Project Scope

The scope of this project included:

- conducting a phenomenological literature review to fully understand the nature of the problem and the gaps in research
- designing a phenomenological sequential mixed methods research project to explore the collaborative relationships between occupational therapists and general education teachers and apply new knowledge to the revision of the current S'cool Moves training framework
- analyzing Phase 1 data using the CLA framework and content analysis
- interpreting the data results and present the information in a logical sequence
- underpinning the revised S'cool Moves training framework with evidence based research gathered from Phase 1, the qualitative phase of this study
- designing the artifact, the revised training framework, to reflect the results of this study including reviewing the current content and providing rationalization as to what remained, was revised, or added to the current workshop training booklet
- evaluating to what extent the revised training framework met the needs of the stakeholders by administering an evaluation survey at the conclusion of ten training sessions
- providing quantitative data in Phase 2 to report the findings from the completion of evaluation surveys
- compiling and organizing the research findings using APA style dissertation protocol.

5.2.3 Project Milestones

The project milestones included:

- ☐ conducting the literature review and discovering the gap in the research that this project could fill
- ☐ receiving approval from the USQ Ethics Committee to proceed with the research project
- ☐ enlisting volunteers from the fields of occupational therapy and education to participate in the study to create 18 pairs, with each pair consisting of one occupational therapists and one general education teacher
- ☐ completing all interviews and typing the interview transcripts
- ☐ completing data analysis using CLA methodology and content analysis
- ☐ organizing and compiling the research results for Phase 1
- ☐ designing the revised training framework
- ☐ completing training sessions using the revised training framework
- ☐ organizing and compiling the research results for Phase 2 using QuestionPro™
- ☐ completing all chapters of the dissertation.

5.2.4 Project Outcomes

A discussion follows highlighting personal, professional, and organizational outcomes resulting from this research project. In addition, the revised training framework is introduced including the development of small group activities and the training booklet.

5.2.4.1 Personal Outcomes

The researcher's personal journey, broadly put, was one of becoming a researcher who understands the process of taking a topic from its earliest inception to completion using rigorous and ethical means to answer research questions.

The term 'reflective practitioner' is used to describe the experiential process of studying real life problems and acquiring knowledge that can solve problems within the reality of the work place (Gregory, 1994). Dewey expressed that the role of reflection is to engage in

experiences and personalize the learning process in order to assign deeper meaning, understanding, and extension of the learning (Bringle & Hatcher, 1999). Through the process of completing this project, personal growth in the area of reflective practice demonstrates the value of embracing lifelong learning. In order to grow professionally, one must experience personal growth that expands one's thinking and deepens humility through understanding that there is much to learn when one is open to the experiences presented and assumes responsibility for self-reflection.

Though some may argue that lifelong learning is essential for economic growth and thriving communities, lifelong learning is also about expanding one's view and journeying with a different view that is deeper and richer than previously held perspectives. Kant argued that it is one's responsibility to nurture the body, mind, and spirit so that full expansion of one's capabilities is realized (Aspin & Chapman, 2001).

Through this doctoral process and the pursuit of knowledge, a transformation has taken place whereby formerly perceived limitations in cognition and competence in the area of research and advanced studies has transformed into personal growth beyond self-imposed limitations of thought and cognitive advancement (Aspin & Chapman, 2001).

Throughout the process of completing this project, personal realizations surfaced including understanding that knowledge comes from the wisdom of the collective consciousness of all beings and not limited to individuals. Personal growth is a metacognitive process and knowing what one does not know is an important step in pursuing opportunities for personal growth. Though personally responsible for the content of the S'cool Moves training program, true knowledge grows out of the experiences of the individual, the context of the work environment, and the members from communities of practice (Lester & Costley, 2010). This is a valuable outcome of the personal journey experienced through participation in the Doctor of Professional Studies Program.

Additional personal growth includes:

☐ valuing life long learning and the power to continue learning throughout one's lifetime

☐ being challenged intellectually and the need to find the cognitive resources to understand difficult theoretical articles and concepts

☐ enjoying the process of developing a research project from beginning to end

☐ participating in intellectually stimulating conversations with professors

☐ letting go of the expert status and being a student again

☐ acknowledging the wisdom of all those who participated in this study and being humbled by their contributions to the success of this project

5.2.4.2 Professional Outcomes

The project provided valuable contributions to the researcher's professional knowledge, including increased understanding of collaboration, application of research outcomes to develop a revised training framework, and the use of rigorous research to justify training elements. The end result of the research conducted is an evidence-based training framework focusing on collaboration in the classroom environment. Including collaboration theories from outside the fields of education and occupational therapy widens the knowledge base and provides opportunities to infuse the two fields with fresh insights. Ultimately, the revised training framework made a valuable contribution to training methodology for S'cool Moves, Inc., the company founded by the researcher.

In addition, professional practice was advanced to include the ability to:

☐ demonstrate working at the leading edge of practice underpinned by theoretical understanding

☐ develop cognitive skills that demonstrate intellectual independence and a high level of critical thinking in generating original knowledge

☐ contribute to the advancement of knowledge relating to professional practice and leadership in education

☐ apply knowledge and skills at a doctoral level acquired through research training embedded in the program while planning and executing original research

☐ integrate empirical, methodological, and theoretical knowledge that engages current work-based issues and contributes to professional practice

☐ demonstrate the capacity to add value to, and to help sustain contemporary learning communities in the education profession

☐ demonstrate awareness of ethical dilemmas and conflicting values which may arise in professional practice and work situations

☐ take into account complex, unpredictable, specialized work contexts requiring innovative approaches, which involve exploring current limits of knowledge and, in particular, interdisciplinary approaches and understanding

☐ develop and extend a commitment to lifelong education and to fulfilling personal objectives, organizational aims, and those of others

☐ demonstrate communication skills to explain and present a complex investigation of originality for external examination against international standards for dissemination amongst peers and the community both nationally and internationally.

5.2.4.3 Organizational outcomes

The project added to the body of knowledge focusing on collaboration in the education and occupational therapy fields. As discussed earlier in the literature review, though interprofessional collaboration is mandated by the Individuals with Disabilities Education Act (IDEA) and recommended as best practice in the therapy profession, evidence focusing on how to achieve that goal remains minimal. The research results underpinned the revised training framework and informed future practices, thus adding to the larger body of knowledge and contributing practical solutions that address how to collaborate in the context of general education classrooms.

Participants from nine training sessions throughout the United States evaluated the framework's effectiveness; these participants showed strong support for the training framework, as evidenced by responses to evaluation questions (discussed fully in chapter

three). Administrators attending a tenth session (in Hillsboro, Oregon) chose to use their own proprietary evaluation forms rather than the S'cool Moves evaluation form. The results of the evaluations were discussed fully in chapter three.

5.2.4.4 Methodological outcomes

The project broadened the use of CLA as a promising methodology in the fields of education and occupational therapy. Additionally, interactively utilizing CLA during workshops deepened participants' understanding of the multiple layers underlying their collaborative practices, while at the same time introducing participants to a promising new research methodology.

5.2.5 Training program: Small Group Activities

Justification for elements included in the revised training framework is based on information uncovered in the CLA process. Prior to this study, support staff and teachers attending S'cool Moves trainings received a workshop booklet highlighting S'cool Moves techniques; however, the booklet offered no specific information regarding the topic of collaboration.

Additionally, no group activities in the training sessions focused on the deeper issues uncovered by CLA methodology. The new revised training framework includes: an introductory activity using CLA; discussion of learning theory; specific activities designed to enhance collaboration in the classroom; and a closing activity using the A-E Collaboration Cycle. The A-E Collaboration Cycle is the culmination of specific steps that supported the pairs' collaboration success as discussed during the interview process. Each of these elements is discussed in this section, as is the rationale supporting their inclusion based on research data summaries using CLA layers. The contents of the artifact, the revised training booklet, are discussed in section 5.3.6.

5.2.5.1 Workshop small group activity #1: CLA

The researcher chose to introduce CLA methodology as part of the revised training framework. The researcher attempted three different presentation formats, discussed in detail and illustrated below. It is important to note that CLA methodology and terminology

introduced new concepts to workshop attendees; as such, finding a way for participants to grasp CLA created a challenging proposition in light of the limited time available for teaching and experiencing CLA in a one- or two-day workshop.

CLA Presentation Format One

To familiarize the audience, the researcher showed PowerPoint images illustrating the concepts behind CLA, discussed the four layers through examples, and used CLA terminology (litany, systems, worldviews, assumptions, perceptions, myth, and metaphor) in context. At the first training, all participants remained in one large group as the researcher provided the group with a scenario and elicited responses regarding how the layers affected the scenario. The researcher observed general confusion in regard to understanding CLA methodology and its associated terminology.

Due to the large group appearing confused in the first training session, the researcher instead instructed participants to break into smaller groups for the next training session while displaying the same PowerPoint presentation. Each group discussed all four layers and wrote insights for each layer on a worksheet. Ultimately, the task was too large, took too much time, and led to a general feeling of confusion and frustration among group members, as observed by the researcher.

Whether in large or small groups, asking participants to explore all the CLA layers proved a challenging, confusing task. Without background knowledge and experience to bring to the CLA activity, participants lacked an understanding of how the activity related to the workshop goals. Beginning a workshop with an activity that caused participants to doubt the value of the information presented proved to be an undesirable situation. However, the researcher remained steadfast in the belief that introducing groups to CLA methodology was an important part of the training framework; the question of how to teach CLA in a short amount of time remained a challenge. Figure 5.1 illustrates the presentation format and outcomes.

Figure 5.1: Illustrative representation of CLA presentation format one
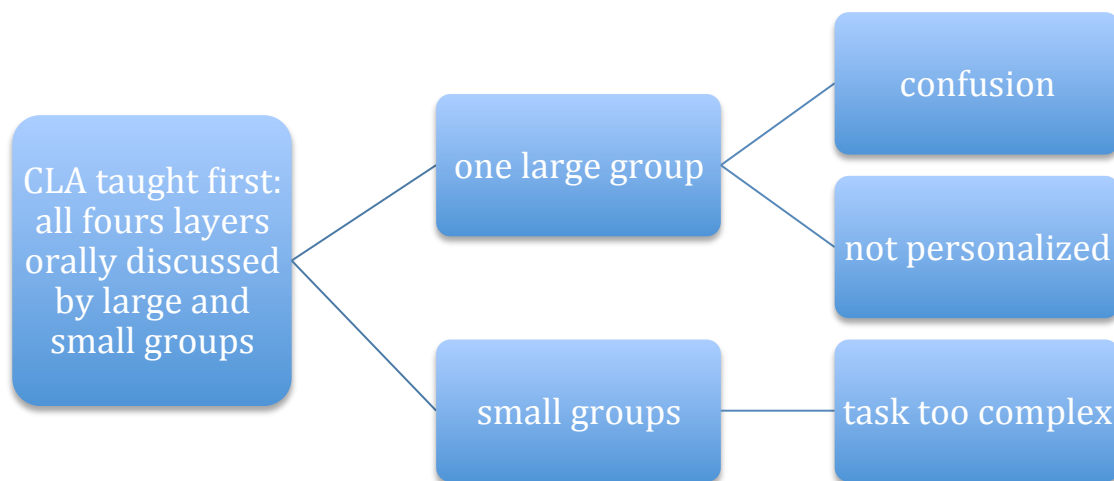
Source: Developed for this research.

CLA Presentation Format Two

The researcher sought advice from someone well-versed in using CLA with groups; in response, the professor recommended creating small groups and asking each group to discuss only one layer. Each group chose a different layer, for a total of four groups. The first workshop in which Format Two was implemented had a low number of attendees, so the format worked well in terms of there being enough participants to create four evenly-numbered groups. The groups wrote their comments on a worksheet, and one person from each group shared insights for each assigned layer.

Based on observations from the researcher, the participants appeared engaged during the activity and their understanding of CLA was noticeably better than outcomes from Presentation Format One. Despite this progress, there remained a general lack of understanding of how to effectively analyze and gain insights using the layers comprising CLA. Overall, attendees were able to personalize and understand CLA better than with Presentation Format One. The researcher continued to think about how to teach CLA and fine-tune the presentation. Figure 5.2 provides an illustrative representation of the CLA process and outcomes for the second presentation format.

Figure 5.2: Illustrative representation of CLA presentation format two
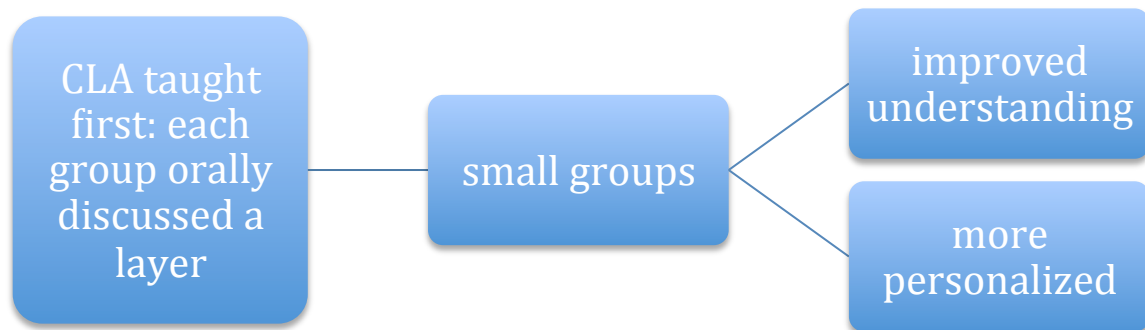
Source: Developed for this research.

CLA Presentation Format Three

After discussing outcomes from presentation formats one and two, a peer recommended to the researcher that participants experience CLA prior to formally learning about the methodology and associated terminology. The researcher designed a questionnaire guiding attendees in their small group discussions (see Appendix G).

Each group wrote responses to the questions on large chart papers, which were then posted on the wall. The attendees walked around the room and read one another's group responses. After bringing the groups back together, the researcher introduced CLA using the associated terminology. The researcher observed participants responding positively to the value of the activity, and sensed an increased understanding of collaboration and the ability of the layered analysis to reveal deeper insights. This presentation format was highly effective in the sense that, through guided questions, the attendees personalized their collaborative experiences and gained appreciation for CLA in a short amount of teaching time. This presentation format was used at the last three training sessions; based on the researcher's observations, verbal feedback from group members, and excitement from participants as they shared CLA responses, the new format produced positive results. Figure 5.3 illustrates the presentation format and outcomes for the third presentation.

Figure 5.3: Illustrative representation of CLA presentation format three
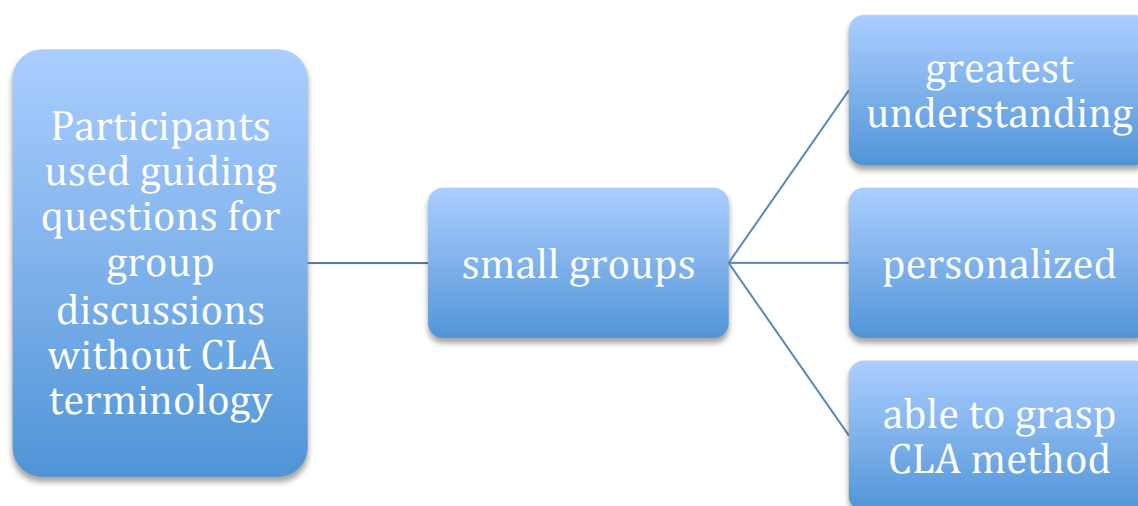
Source: Developed for this research.

The addition of a CLA-focused small group activity at the outset of the training session provided a reference point for integrating and personalizing the subsequent training framework activities by building on insights gained by working through the CLA process.

5.2.5.2 Workshop small group activity #2: A-E collaboration cycle

Based on the data, the researcher crafted a preliminary five-step cycle to summarize the key elements of effective collaboration. In the absence of a framework supporting collaboration between occupational therapists and general education teachers, this A-E Collaboration Cycle holds promise as a starting point for therapists and teachers to begin working together in classrooms. At the close of each training workshop, participants completed a written implementation plan based on this cycle, which consisted of a plan of action for each of the five stages of the cycle. For instance, for the Administrative Support stage, participants decided how best to inform administrators and garner support for plans to begin collaborating in classrooms. If participants already had administrators' support for collaboration, they progressed to the next stage of the cycle, "Begin Training." Figure 5.4 illustrates the collaboration cycle; for ease of remembering the cycle stages, the cycle utilizes an A-E mnemonic approach.

Figure 5.4: A-E collaboration cycle: Occupational therapists and general education teachers moving forward with collaboration

Source: Developed for this research.

The following section provides the rationale for each of the stages of the collaboration cycle. As noted earlier, research underpins the theories and activities included in the revised training framework. The challenge lies in converting research into practical application through visual representation that conveys the research outcomes.

5.2.5.2.1   Rationale for each of the stages of the A-E collaboration cycle

A. Administrative Support

At the systems level within the CLA analysis process, teachers and therapists commented that support from school administration was an essential component for their success in collaborating. Therapists reported garnering support by talking with administrators, providing evidence in support of collaboration, and demonstrating activities for administrators. Teachers reported that communicating their enthusiasm for collaboration increased administrative support. Once administrative support was secured, the pairs felt safe to integrate focusing strategies and other therapy-suggested activities into the daily classroom

schedule. Observing improved student behavior and/or improved academic skills led administrators to understand the value of the activities and make positive comments to the pairs. The positive comments increased the pairs' feelings of effectiveness; the feedback underpinned the pairs' desires to continue working collaboratively. Figure 5.5 illustrates how the pairs garnered administrative support for collaboration.

Figure 5.5: How pairs garnered support from administrators
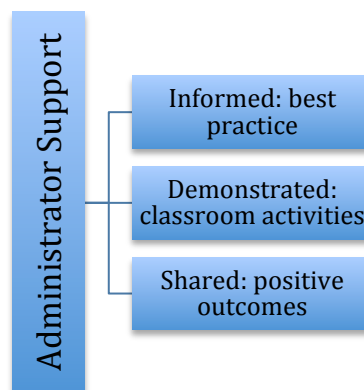
Source: Developed for this research.

Examining why the pairs perceived their collaborative relationships as successful provided valuable information for workshop attendees. Figure 5.6 highlights how the pairs measured successful collaboration.

Figure 5.6:

Attributes of successful collaboration between OTs and general education teachers
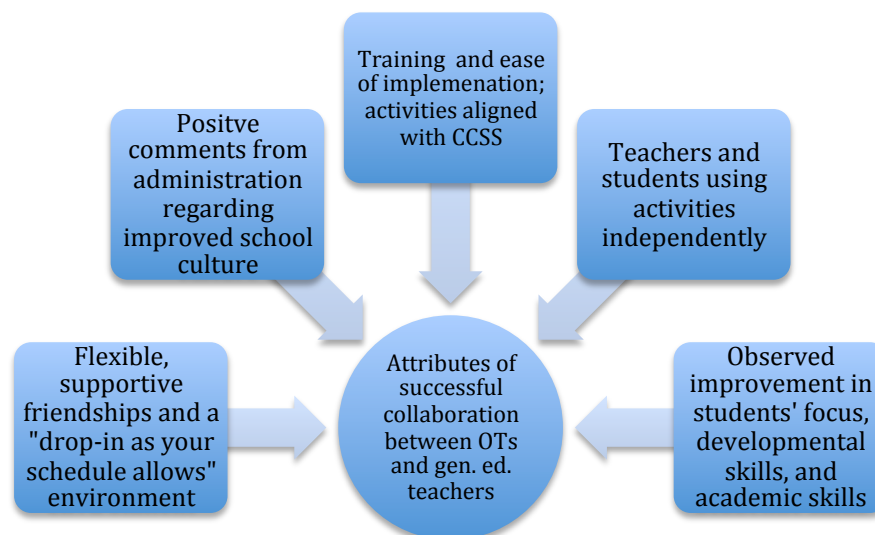
Collaboration between general education teachers and occupational therapists in classrooms: A layered analysis of professional practice in the USA

Source: Developed for this research.

B. Begin training

After garnering administrative support, the pairs negotiated how best to begin training. As described in the systems layer of CLA analysis, therapists took the lead by training teachers in strategies and activities with which they were unfamiliar. The teachers shared opinions as to what therapists should consider when conducting training for teachers; figure 5.7 illustrates and summarizes successful attributes of training, according to the teachers interviewed.

Figure 5.7: Attributes of training success according to teachers

Focus on practice—value is in doing activities

Limit medical terminology and methodology

Limit theory to real-world application

Attributes of training success according to teachers

Simple, classroom-friendly 1-2-3 steps
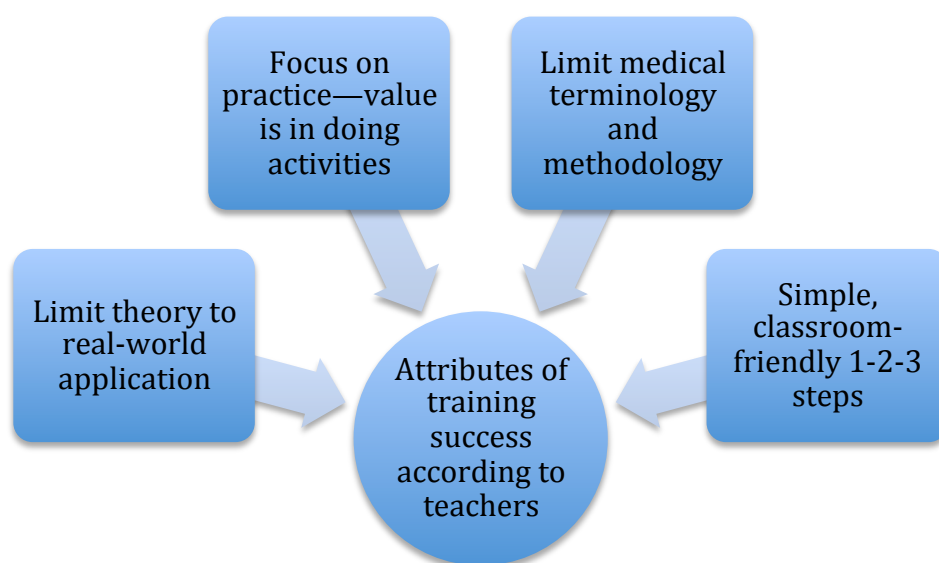
Source: Developed for this research.

Training formats took into account school contexts, meaning that for each individual school situation, therapists and teachers were advised to be flexible in determining how best to begin training. For some pairs, training began with a five-minute introduction at a staff meeting and then progressed to "mini-in-services" in the classroom during scheduled times. For other pairs, the principal provided time for training during staff development days, and the therapists presented to the staff on a set date. Still others completed training before or after school on their own time, outside paid hours. Figure 5.8 illustrates the training options discussed by the pairs.

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Figure 5.8: How pairs found time for training

Brief staff meeting introduction

Staff meeting 5-10 minute lessons

Before- or after-school training

Real time in-class mini-in-services

Staff development day training

Source: Developed for this research.

Though Response to Intervention (RTI) is a framework designed to improve early intervention and enhance collaboration; the data analysis revealed limited efficacy. Pairs noted that training sessions designed to enhance collaboration and teach intervention strategies were not considered to be part of RTI Tier 1 frameworks. Just as training was contextual according to school variables, the therapists observed the RTI frameworks lacked consistency from school to school. With therapists having busy schedules, clarifying RTI frameworks was not a priority. Within the worldview layer, pairs noted that in-classroom support for all students, as opposed to pulling students with IEPs out for direct services, created greater behavioral and academic student progress.

As therapists uncovered the myth of "fixing" students in pull-out situations, they realized the value of serving students within the context of the classroom. Teachers and therapists recognized the myths inherent in their professions, and worked together to develop instructional practices that moved beyond these myths. Clinical practice became instructional practice in the context of the classroom, where therapists supported teachers in creating developmentally appropriate environments for students. Therapists' respect for teachers

increased as they recognized that specific skills were necessary for teaching success. Figure 5.9 illustrates and summarizes some of the recurring myths reported by the pairs.

Figure 5.9:

Medical and educational models: Myths associated with models as reported by pairs

•Myth of medical model hegemony

•Myth from mainstream public that anyone can teach

Medical Model

Educational Model

Clinical Practice

Instructional Practice

•Myth of fixing students by pulling them out of classrooms

•Myth that all students come to school ready to learn
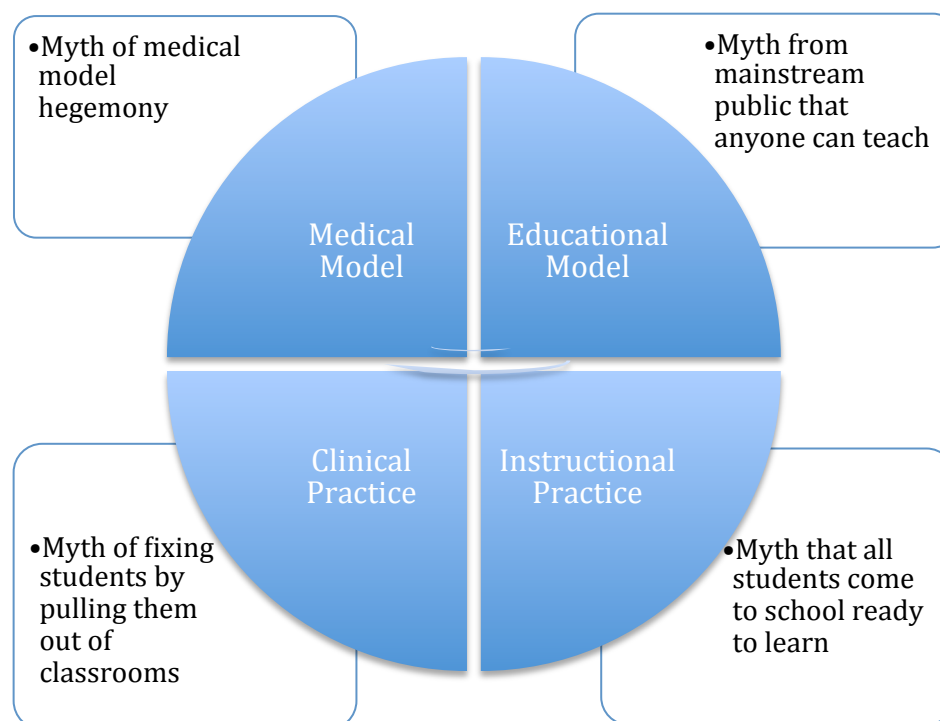
Source: Developed for this research.

As discussed within the litany layer, antecedents leading to the pairs collaborating included: teachers struggling with student behaviors in class; a lack of other adults in the room to support teachers; pressure for students to perform well academically; and developmental needs unmet in the classroom. Teachers and therapists reported increased understanding of how one another viewed the term "behavior." Figure 5.10 serves to illustrate how teachers tended to view behavior as an all-encompassing term whereas therapists tended to compartmentalize types of behavior using medical terminology.

Figure 5.10: Illustrating how teachers and therapists view the term "behavior"
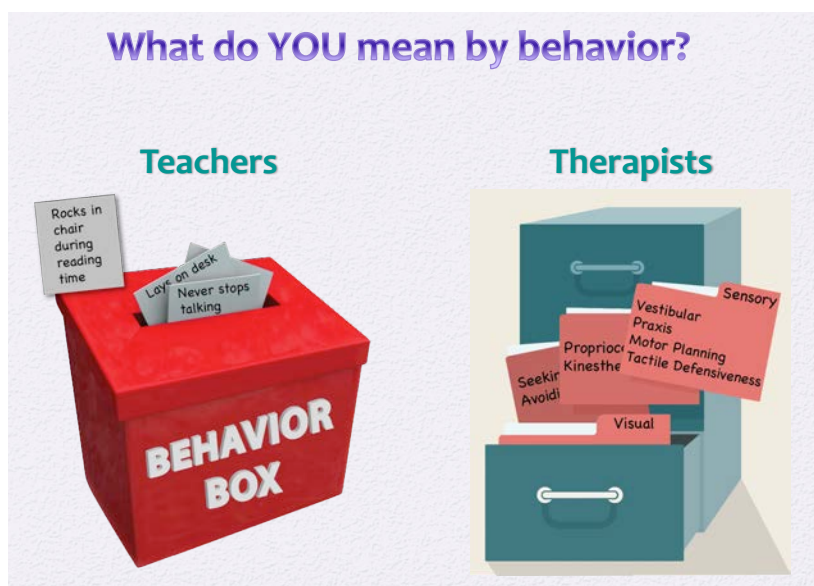
Source: Developed for this research.

The expansion of the therapists' impact is illustrated in Figure 5.11; as shown, one student who is pulled out of class by a therapist can become the catalyst for greater teacher-therapist collaboration in the classroom. For instance, a therapist reported working with one student with an IEP and teaching the student a calming routine that could benefit all students in the child's classroom. The student and therapist then led the class in the calming routine and all student in the classroom participated. When students from one classroom used the routines taught by that first student and the therapist, other classroom teachers became interested in learning the routines. This led to building a collaborative culture throughout the school.

Figure 5.11: Illustrating the new "One-for-All" strategy for service delivery

Source: Developed for this research.

Collaboration between general education teachers and occupational therapists in classrooms: A layered analysis of professional practice in the USA
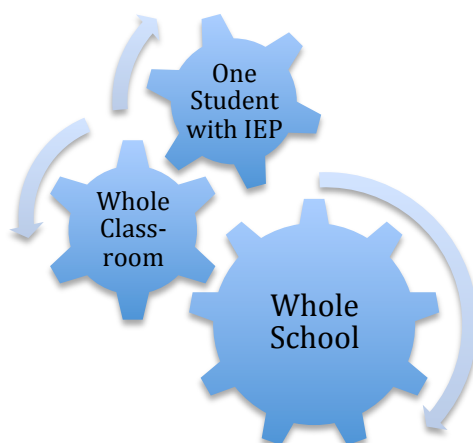
This process, dubbed the "One-for-All" strategy, introduces a new way for therapists to move into the classroom while still providing the more familiar form of service delivery—direct service. The One-for-All strategy leads to an "all for one" mentality, in that once one student with an IEP teaches other students a particular routine or technique, then all students using the routine or technique in the classroom also support the one student with the IEP. Students with IEPs are no longer singled out when everyone does the routine or uses the technique— an excellent example of best practice when providing service for students in the least restrictive environment.

C. Create Learning Communities

Within the litany layer, the pairs characterized their communication as informal; this commonly consisted of casual conversations, quick comments after scheduled collaboration time in the classroom, emails, or "drop-ins" as schedules allowed. Within the systems layer, teachers noted that they were members of Professional Learning Communities (PLCs) or grade-level teams.

As teachers and therapists continued collaborating, narratives of their experiences began to weave into the teachers' PLCs or grade-level meeting discussions. When the researcher asked the teachers if therapists participated in the PLCs or team meetings, all pairs answered in the negative; however, they considered the lack of invitation as on oversight and commented that including therapists in their discussions would further their collaborative relationships. These comments supported the inclusion of a "Create Learning Communities" stage in the collaboration cycle, even though the pairs did not participate jointly in learning communities.

Learning communities such as PLCs, grade-level teams, multidisciplinary team meetings, collaborative learning communities, and other informal variations provide opportunities for collaborating, strategizing future plans, debriefing training session outcomes, and building communities amongst members.

In order to achieve the highest level of collaboration, inclusion of support staff members from all disciplines is paramount; however, the study provides evidence that this is not happening. For this reason, the image of a peanut butter cup serves to illustrate the medical

and educational models underpinning pedagogy from the therapy and educational fields (Figure 5.12). As reported by pairs, both models contribute value in school-based settings. Creating learning communities whereby members from the therapy and education sectors explore and apply best practice shows promise for enhancing collaboration between members from both fields.

Figure 5.12: Medical and educational model best practice Venn diagram
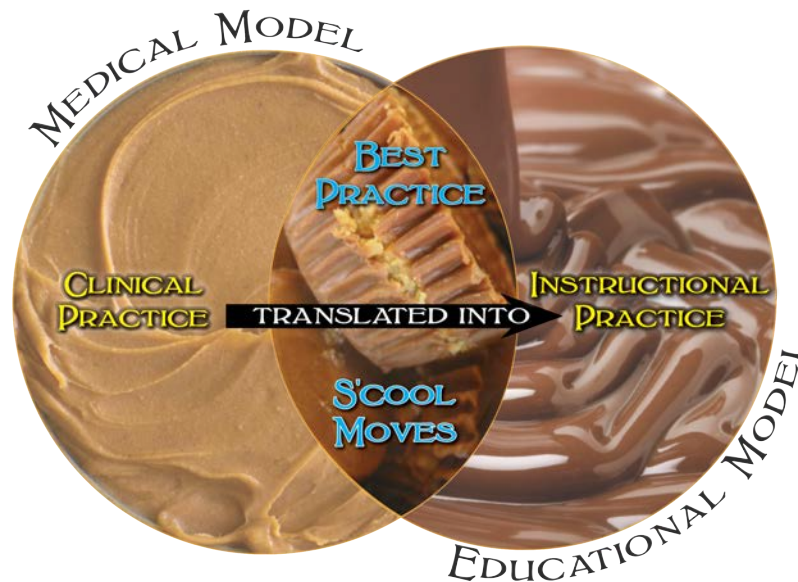
Source: Developed for this research.

D. Design Action Research

Within the litany and systems layers of CLA, the teacher-therapist pairs described their classroom collaborations; from the seemingly random comments of thirty-six individuals, a pattern emerged—that of action research. Though the term "action research" never appeared in any transcript, the process pairs shared was one of reflective practice, problem solving, and action research (Schmuck, 2006).

Intuitively, the pairs participated in proactive action research focused on identifying concerns, trying a new practice in the classroom, collecting observational data, discussing the relevance of their observations, reflecting on alternate ways to behave, and fine-tuning their practices (Schmuck, 2006). Figure 5.13 depicts the action research flow as described by (S. Kemmis, 2007).

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Figure 5.13: Illustration depicting action research
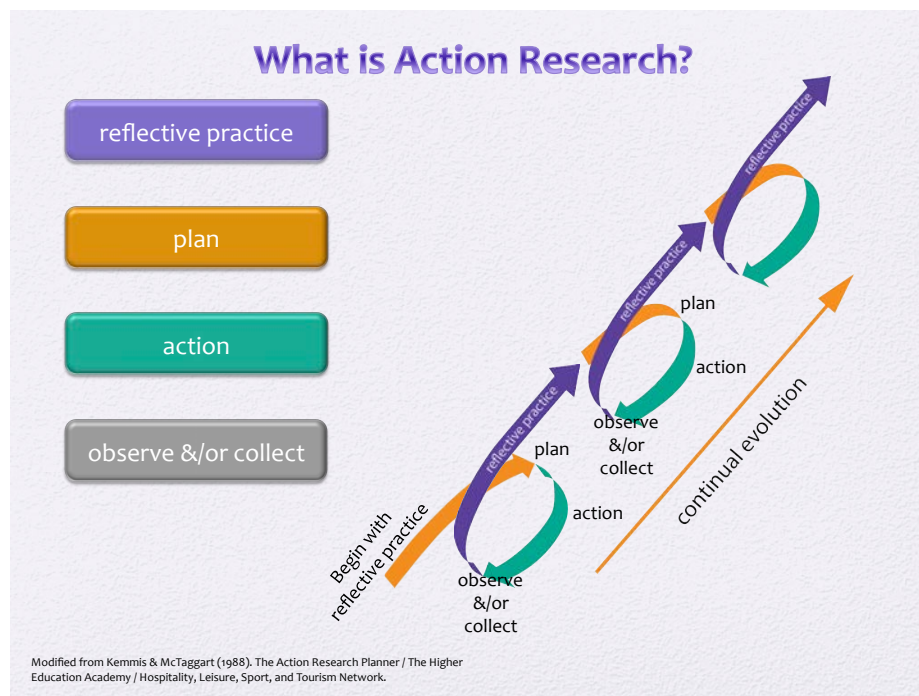
Source: Kemmis, 2007, and The Higher Education Academy/Hospitality, Leisure, and Tourism Network

Adding action research to the collaboration cycle encourages participants in workshops to move from collaborating intuitively to collaborating intentionally. Within PLCs or team meetings, collaborators utilize action research to focus collaboration goals and increase the likelihood of validating outcomes.

As therapists transformed their practices to include classroom support, goals for individual students evolved into focused outcomes for the classroom as a whole. Examples of school-based collaboration consist of three interactive team processes: hands-on supports, team supports, and system supports (Hanft & Shepherd, 2008). Team processes are deemed most effective when there is collaboration between therapists and teachers working together to provide in-context services and support (Hanft & Shepherd, 2008). In-context refers to providing services for students that support their success with school activities and routines. Based on evidence from the research summaries, the pairs participated in team processes as illustrated in Figure 5.14.

Figure 5.14: Team processes

Hands-on Supports	•Academic improvement for students •Activities for Daily Living (ADLs), class jobs, student roles •One-for-All strategy
Team Supports	•Co-teaching, collaborative consultation •In-services, mentoring, RTI, IEP meetings, screening, progress monitoring
System Supports	•Professional development, PLCs •Professional duties as required
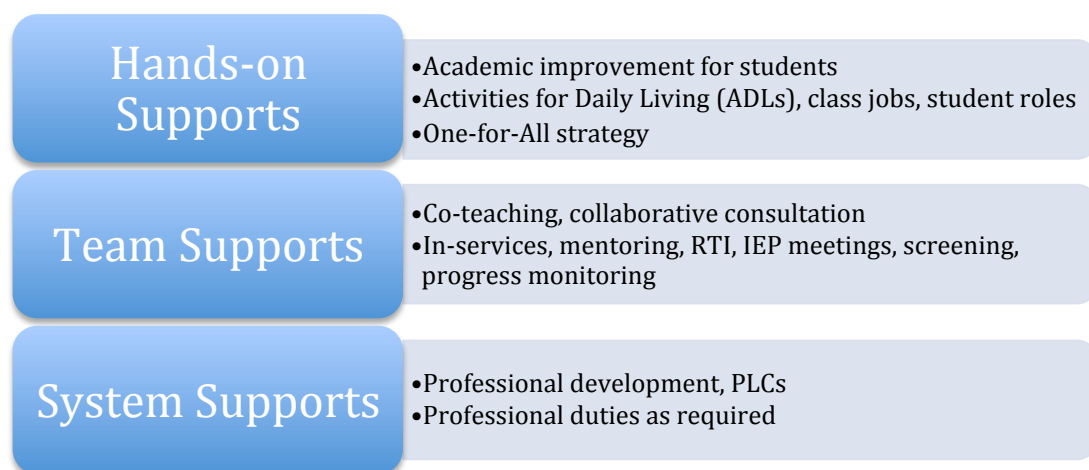
Source: (Summarized from Hanft & Shepherd, 2008, p. 5) *ADL, activities for daily living

As discussed in Chapter 4, the pairs' collaboration included in-context team processes having concluded that services provide outside of the classroom and out-of-context did not further their collaborative relationships. The results of this study show that in-context team processes underpinned the pairs' effective collaboration. Figure 5.15 illustrates how goals and outcomes differ based on the interactive team process utilized.

Figure 5.15: Goals and outcomes related to team processes

hands-on services	team supports	system supports
•individual support staff goals •OT goals	•student goals •teacher goals •focused outcomes	•schoolwide goals •professional goals •school culture goals
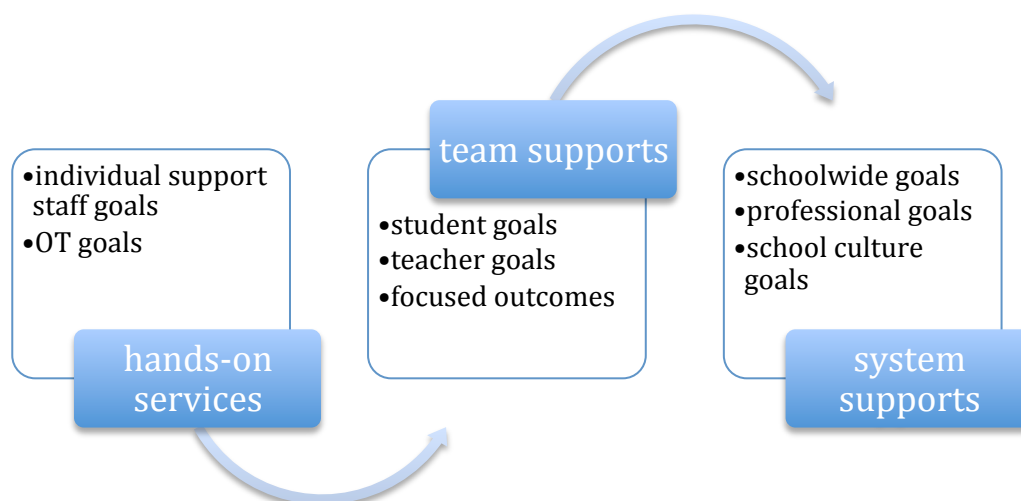
Source: (Modified from Hanft & Shepherd, 2008)

The outcomes most commonly reported by the pairs were measured by informal methods of evaluation; formalizing evaluation of outcomes using action research may provide a more

reliable measure of collaboration effectiveness. Teachers recommended that outcomes could potentially be validated by classroom assessments including work samples and rubrics. Formal assessments (such as standardized tests) were not reported as crucial for measuring outcomes based on collaborating with one another. Though not mentioned by its formal academic name, action research influenced how the pairs worked with one another. Formalizing that process by developing action research projects may enhance the collaborative process and provide evidence of collaboration contributing to student success. For this reason, action research is included in the A-E Collaboration Cycle to specifically highlight its potential for measuring outcomes and evaluating successful collaboration.

The omission of action research in best practice recommendations from the occupational therapy field shows a gap between the medical and educational models, as action research plays an important role in today's classrooms within the general education community (Schmuck, 2006). Though it is beyond the scope of S'cool Moves workshops to explain the process, introducing action research within the training framework provides a formal name for what the pairs reported as part of their collaborative processes.

With respect to goals, the pairs discussed outcomes that resonated with best practices as evidenced by the literature. The goals or outcomes aligned with the type of interactiave team process underpinning their collaborative relationships. Figure 5.16 illustrates the types of outcomes or goals the pairs decided were most important based on their team process.

Figure 5.16: Goals and outcomes related to team processes

Informal	Semi-formal	Formal
• Observation • Conversations/ emails	• Rubrics • Work samples	• Psychometric • Action research

Source: Developed for this research.

E. Evaluate and evolve

Drawing from all the CLA layers, the teacher-therapist pairs discussed ways in which they evaluated their individual effectiveness and the overall success of their collaborative relationships. Data analysis within the deeper layers of worldview and myth/metaphor examines how the pairs evolved while building relationships.

The teachers' and therapists' assumptions, perceptions, and worldviews changed as relationships deepened. These changes led to greater appreciation for one another's skill sets, increased understanding of how training models between professions varied, realization of the benefits associated with working together in the classroom, and improved confidence using strategies in the classroom that benefit all students. Figure 5.17 depicts positive outcomes that the pairs attributed to their successful collaborative relationships.

Figure 5.17: Positive outcomes attributed to pairs' successful collaborative relationships
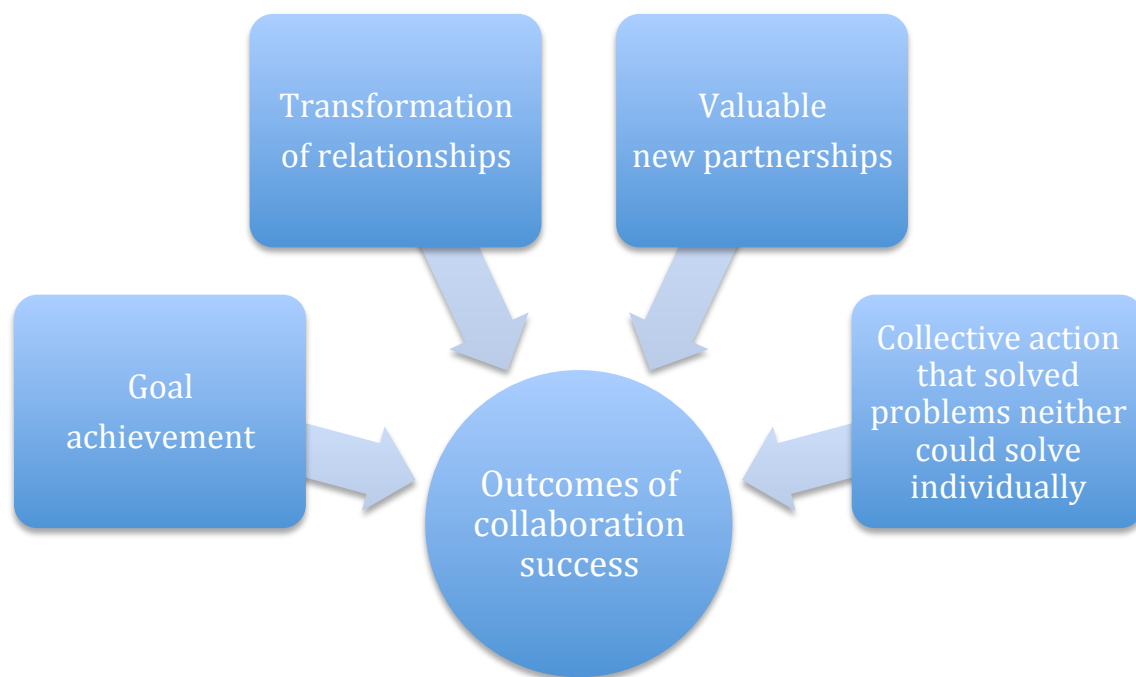
Source: (Modified from Thomson & Perry, 2006)

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Positive metaphors provided by the pairs expressed the value of collaborating with one another. The metaphors resulted from the pairs evaluating their practices, and subsequently evolving both as individuals and partners in collaborative relationships. A selection of representative metaphors is included in Figure 5.18.

Figure 5.18: Favorite metaphors shared by pairs

Favorite metaphors from OTs and teachers used to describe their collaborative relationships	chips and salsa
	coffee cake to go with a perfect cup of coffee
	sugar in my lemonaid
	like a shark and pilot fish working together
	like Christmas in April

Source: Developed for this research.

At the litany level, therapists and teachers reported why they viewed their collaborations as successful. A key attribute of success was positive administrative feedback regarding the pairs' collaborative efforts; for this reason, the A-E Collaboration Cycle returns back to the "Administrative Support" stage. The pairs expressed how important it was to garner and keep support from administration—with support came grant money, materials for classrooms, time provided to continue training, and goodwill toward collaboration efforts. Though the literature emphasizes the importance of collaboration between therapists and teachers in the classroom, minimal research explores the actual process of collaboration in the classroom environment. As more research is conducted, the A-E Collaboration Cycle may be modified and improved as the knowledge base expands to fill the "how-to" gap in the literature.

The discussion moves forward and describes the contents of the revised training booklet including rationale for inclusion or exclusion of content items based on the research findings of Phase 1.

5.2.6 Artifact: Workshop training booklet

The researcher has conducted in excess of 250 workshops in the fifteen years since founding S'cool Moves, an educational consulting company. During those years, the workshop training booklet underwent many revisions in order to stay current with educational practices, theories, and legislation. Revisions in the workshop booklet became limited due to the gap in current research to guide practice regarding collaboration between occupational therapists and general education teachers working in the classroom setting. Though collaboration in the classroom setting is deemed best practice, the research to inform professional practice lagged behind the guidelines calling for collaboration in the classroom environment. For this reason, this work-based research project was completed. As part of the research aims, the entire workshop training framework has been revised based on the research findings.

Table 5.1 compares the previous workshop booklet content to the new workshop booklet used in ten training workshops throughout the United States between August of 2014 and October of 2014. The CLA layer summaries that supported adding or retaining items are included in the table.

Table 5.1: Pre- and post-comparison of workshop booklet

Previous Workshop Booklet	Current Training Workshop Booklet
Agenda and learning outcomes focused only on S'cool Moves theory and activities	Agenda and learning outcomes include defining and understanding the elements of successful collaboration (based on litany layer summary)
RTI model removed (systemic layer)	Two pages added to define collaboration and provide graphics depicting research findings (based on all four layers)
No collaboration process that focused on successful collaboration	A-E Collaboration Cycle diagram added (based on all four layers)
No discussion how to collect research data	Image added highlighting an Action Research Flow (based on litany, systemic,

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	and worldview layers)
Discussion regarding overlapping behavior with graphic	Discussion expanded to include additional graphic depicting how teachers' and therapists' define behavior; a box versus a file cabinet

(based on worldview layer) |
No model for depicting how academics are supported by developmental skills	Creation of the Pillar and Block Model depicting research-supported reading pillars with developmental skill blocks supporting pillars (based on worldview, myth or metaphor layer)
No tie to Common Core State Standards (CCSS)	Lesson plan added showing how activities align with Common Core State Standards (CCSS) (based on litany, systemic, and worldview layers)
Six S'cool Moves Principles	Six S'cool Moves Principles retained due to study outcomes alignment (based on all four layers)
Accountability Chart	Accountability chart retained (based on litany layer)
Ten Minute Moves activities	Ten Minute Moves activities retained (based on all four layers)
No resource list	Resource list complied and added providing information of programs mentioned in study that aided collaborative efforts (based on systemic layer)
Brain research verbally presented	Written Brain Tips added to each Minute Moves activity for ease of replicating information when attendees shared with

	others at their schools (based on litany and systemic layers)
No quotes from collaborators in the field	Anonymous quotes compiled with permission from interviewees added throughout booklet (based on all four layers)
Student Job Cards	Student Job Cards retained (in a separate booklet) with the addition of a Student Job Leader Chart (based on litany layer)
In a Pinch Guide to Behavior Challenges	In a Pinch Guide to Behavior Challenges retained due to study outcomes alignment (based on systemic layer)

Source: Developed for this research.

Based on research summaries within each of the CLA layers, research-supported items from the former booklet remained in the new booklet and new items were added to reflect the conclusions drawn from data analysis.

5.3 WORKSHOPS CONDUCTED

The researcher conducted workshops at ten locations in the United States. Workshop locations were part of the researcher's previously-arranged Summer and Fall 2014 schedule, and not based on any geographic area being more important than another in terms of testing the revised training framework. Attendees in workshops included occupational therapists and general education teachers, as well as multidisciplinary staff members. Support staff included physical therapists, speech therapists, behavior intervention specialists, school psychologists, school counselors, special education teachers, paraprofessionals, autism specialists, academic intervention specialists, reading specialists, physical education teachers, adapted physical education teachers, and clinical social workers.

As discussed in Chapter 3, the post-workshop attendee evaluations provided evidence of the revised training framework meeting its objectives—namely, to create a foundation of

research-supported theory and activities that enhance collaboration between general education teachers and occupational therapists.

5.3.1 Administration of evaluation survey

The survey was administered at the conclusion of nine S'cool Moves training sessions. All participants voluntary completed the evaluation survey (Appendix D). The data was recorded using an online database program, QuestionPro™. The data management of the survey questionnaire was determined to be web-based. Web-based data capturing and storage are noted to be the cheapest, fastest form of organizing data for analysis as all data is pre-coded, logically arranged and can perform descriptive data analysis (Neuman, 2006).

Due to i) the lack of resources available to the researcher, ii) time constraints of the research, iii) geographic diversity of the population, iv) broad scope and nature of the research problem and v) standard training evaluation practice, hard copy surveys administration was still used. These surveys were immediately available to participants and illustrated an effective and efficient method of administration. It is suggested that future evaluation surveys are expanded to include measurement scales related to the dimensions of collaboration closely associated with the training, which may also include aspects of CLA questions. With this broadening of the evaluation survey, an online survey would be most appropriate.

5.3.2 Preparing the data for analysis

The data of the study required processing and editing in order to convert the data collected into a format that would be suitable in answering the study's questions (Zikmund, 2003). This process ensured that the primary data array was suitable for further analysis in terms of being accurately coded, downloaded into the computer data base, cleaned and screened (Malhotra, 1999).

In the instance of questionnaires that were incomplete it was determined that responses with more than 25% missing data should be excluded (Sekaran, 2002). It was assumed that in these cases, respondents had either lost interest or were not serious in the first instance.

5.3.2.1 Data coding

Coding was fulfilled automatically by assigning a code to each response as inputted into the online database (Malhotra 2007). Case responses were automatically coded by the online survey software and respondents were issued with a response ID.

The raw data was edited after the responses were collected. The editing functioned as a quality screen that ensured that all data was complete, free of inconsistencies, accurate and completed by eligible respondents (Malhotra 2007; Neuman 2006).

5.3.2.2 Cleaning and screening

The purpose of following the cleaning and screening process is to ensure that the data has been transcribed correctly by identifying outliers, missing data and inconsistent responses (Malhotra 2007).

Respondents' answers were automatically assigned and recorded in the online data base according to the coded variables. The data was then downloaded from the online database into a Microsoft Excel file format. The Excel files containing all the primary data were then exported into a SPSS .sav file format for further processing.

 One category of data problems was considered: case-related problems such as missing values and outliers (Hair et al. 2006). In terms of case related problems, data was checked for accuracy and to ensure that missing values were treated appropriately. The data was checked onscreen by the researcher with frequencies run in SPSS for every variable, checking outlying data and missing values.

Missing data

Due to the brief (ten questions) nature of the survey the occurrence of missing data was minimal. However, SPSS data analysis software was used to check for missing values. Imputation of the missing values is the most logical remedy to be applied in the event of missing data in excess of 10% (Hair, et al. 2006). There is no need to model the missing data in terms of ignorable missing data as part of the evaluation process. However, values were

imputed utilizing series means in order to ensure that the study would retain these cases for the analysis.

Outliers

SPSS data analysis software was used to identify any outliers in the data. Outliers are defined as observations that are distinctly different from other observations in the data set (Hair et al. 2006). The impact of outliers can be negative or positive and should be viewed within the context of the analysis. The information they provide may be of benefit or are not representative of the population presenting the possibility of distorting the statistical analysis (Hair et al. 2006). Due to the evaluative nature of the survey, the impact of outliers was deemed to be irrelevant and did not impact the findings.

Normality

Many inferential statistical techniques require an assumption of the normality of the data. Testing the data for normality was conducted and included consideration of graphical depictions (box-plots, stem and leaf plots, histograms), frequencies and statistical tests. No non-normal distributions were detected.

5.3.2.3 Summary

The process of data cleaning ensured that the data was accurately represented in terms of the observations. It further applied the population parameters to ensure that the data retained was reflective of the population being studied.

Data screening identified and addressed aspects of missing data, outliers and non-normality related to the data. Missing data was negligible. Outlier and non-normality violations were examined and addressed within the context of accepted criteria. Having explained the data cleaning and screening procedures, the next section considers descriptive statistics.

5.3.3 Descriptive data analysis

The descriptive data analysis was compiled using the online database, QuestionPro™. Table 5.2 provides the descriptive statistics for the evaluation survey responses.

Table 5.2: Descriptive statistics for the evaluation survey responses

QUESTION	Strongly Disagree		Disagree		Undecided		Agree		Strongly agree	
	n=	%	n=	%	n=	%	n=	%	n=	%
Causal Layered Analysis (CLA), the opening group activity, helped me understand different participants' perspectives on collaboration.	2	0.52%	2	0.53%	14	3.68%	146	38.42%	216	**56.84%**
I would use CLA in other situations where understanding of various points of view is important.	2	0.53%	6	1.59%	31	8.20%	151	39.95%	188	**49.74%**
The theory provided a foundation for why collaboration is important for student success.	1	0.26	1	0.26	4	1.04%	112	29.09%	267	**69.35%**
The training provided useful techniques for enhancing collaboration with other professionals on staff.	1	0.26%	4	1.04%	10	2.60%	104	27.08%	265	**69.01%**
The week-by-week implementation plan increased my confidence with getting started.	0	0.00%	5	1.31%	12	3.15%	92	24.15%	272	**71.39%**
The small group activity focusing on CCSS increased my skill level for integrating academics with foundation skills.	0	0.00%	2	0.52%	18	4.72%	133	34.91%	228	**59.84%**
I have increased my knowledge and grasp of S'cool Moves learning objectives.	0	0.00%	1	0.26%	0	0.00%	60	15.54%	325	**84.20%**
After attending this training, I want to share what I've learned with others.	1	0.26%	0	0.00%	4	1.03%	53	13.70%	329	**85.01%**
I would encourage my colleagues to attend a collaboration training like this one.	1	0.26%	4	1.04%	5	1.30%	56	14.58%	318	**82.81%**
Overall, the training met my expectations.	2	0.52%	3	0.78%	8	2.08%	70	18.18%	302	**78.44%**

Source: Developed for this research.

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5.3.4 Discussion of results

The ten-questions evaluation survey yielded overall positive feedback regarding how the attendees perceived the training framework as a valuable experience in terms of providing evidence based research to support collaboration efforts among school staff members. The average rating for all ten questions combined was 4.66. The highest rated questions received a 4.84 and 4.83 average respectively: "I have increased my knowledge and grasp of S'cool Moves learning objectives" and "After attending this training, I want to share what I've learned with others."

The two questions related to CLA received an average rating of 4.51 and 4.37 respectively: "Causal Layered Analysis (CLA), the opening group activity, helped me understand different participants' perspectives on collaboration" and "I would use CLA in other situations where understanding of various points of view is important." These ratings were impressive considering that all participants were unfamiliar with the concepts and terminology associated with CLA. Refer to Appendix H for photographs of group CLA charts completed during the opening small group activity.

Not only did the participants gain valuable insights while completing the CLA activity, but also the researcher-presenter was able to obtain a group "snapshot" of their collaborative experiences within the CLA layers and modify the training session to meet the participants where they were in the process. As illustrated in the chart photographs, some groups were further along with collaboration than other groups.

Overall, rating of 4.66 offered evidence that the revised training framework met the needs and expectations of the participants. Participants were invited to add personal comments after completing the ten-question portion. Below are representative responses to the open ended sentence starter "I learned":

- how to approach other professionals in order to create better collaboration within the school
- more about collaboration to start in new environments and more tools for classroom integration and academics

- how to collaborate with school staff to help the students be more successful
- good to balance educational and medical information
- some great ways to explain to teachers why to incorporate these activities
- it's very important to speak "teacher" and how to explain to them why different things we do as OTs affect student learning
- this is the best course I have taken in a long time and just what I needed to refresh and spruce up my skills for something new for kids
- how to add more academics into S'cool Moves activities

The positive comments furthered the evidence that the training framework proved personally and professionally valuable based on the responses from attendees who took the time to complete the open ended section of the evaluation survey.

5.3.5 Conclusions drawn from quantitative data analysis

The data analysis provided evidence that the revised training framework met the expectations of the participants and the objectives of the presenter—namely, create a training program underpinned by rigorous research that provides attendees with the rationale and tools to move forward with collaboration in general education classrooms.

The training framework may be characterized as an innovation for the fields of occupational therapy and education. For the purposes of this study, an innovation is defined as an idea or practice that is perceived as new by an individual or group (Rogers, 2003). How the individuals or group view the innovation affects how quickly the innovation is adopted. The theory of diffusion (Rogers, 2003) may assist with understanding why the training framework received higher than expected acceptance ratings by attendees. Participants may have positively responded to the content of the training framework due to its possessing five key elements that prompt individuals or groups to adopt a new innovation. These elements according to (Kaminski, 2011) include:

1) **observability:** the degree to which potential adopters can see results; within the workshop booklet anonymous quotes were added from research participants to assist with endorsing the methods being taught

2) *relative advantage:* the perception that the innovation is better than current practice; additional research results were added to the workshop booklet to highlight the benefits as reported by the research participants

3) *compatibility:* how well the innovation aligns with the individual or group's values, perceptions, assumptions, worldviews, personal narratives; participating in the CLA opening activity served to uncover deeper layers of knowing within the groups that created openness and willingness to understand one another's perspectives while working together to find common ground and effective ways to collaborate with one another

4) *trialability:* the degree to which the innovation can be taken for a risk-free test run; attending the workshop was voluntary and participants could decide, without personal or professional risk, the extent to which they would use the techniques and activities presented during the workshop

5) *complexity:* the ease to which the innovation can be implemented, understood, or used effectively; based on the evaluation surveys, participants left the workshop feeling confident with implementing the program, and open-ended comments along with comments from the research participants support the notion that the program is perceived as easy to understand and implement.

According to Kaminski (2011), when respect and consideration for all involved stakeholders is intertwined with rationale and strategies that underpin the call for change there is the likelihood that individuals or groups may embrace change and adopt new innovations. A key addition to the revised training framework was the opening small group activity using CLA. Through the process of CLA, the stakeholders were able to discuss and engage with one another on a deeper level that brought their worldviews, myths, metaphors, and personal narratives to the surface. In doing so, an opening was created amongst participants to step into a safe place where change could begin.

With limited research available to guide participants, being willing to provide services for children in the least restrictive environment—the classroom, is an important paradigm shift

for staff trained in clinical service delivery that usually takes place outside the classroom on a one-to-one basis. The results of the evaluation survey showed an openness to begin the shift and a willingness to work collaboratively with one another—acknowledged as best practice and encouraged by legislative mandates (Clark & Chandler, 2013; Hanft & Shepherd, 2008; Hanft & Swinth, 2013; Murawski & Hughes, 2009; Orentlicher et al., 2014).

5.4 CONCLUSIONS

The artifact—the revised training framework—served to provide participants coming together at workshops with evidence-based theories and applications highlighting best practices in collaboration. Creating collaborative relationships that lead to successful interventions for children in classroom environments is the ultimate objective in undertaking this research project.

Based on the positive evaluations from participants, as discussed in Chapter 3, the training framework used for the current S'cool Moves workshops met the needs of participants; it not only enhanced their understanding of CLA theory, but also its application when working with individuals from different fields and backgrounds. In addition, participants responded positively to sharing with others what they learned from the workshop. Workshop attendees agreed that the training held promise for enhancing collaboration between staff members from the special education and general education fields.

A quote by inventor and industrialist Henry Ford concludes this chapter: "Coming together is a beginning. Keeping together is a process. Working together is a success" (Ford, n.d.). These words serve to mirror the aspirations of the training workshops and, by extension, this project and associated research. Deep insights were gained through the research, and when insights are converted into practical application, there lies a high likelihood of coming together, keeping together, and working together in successful collaborative relationships.

CHAPTER 6

CONCLUSION

6.1 INTRODUCTION

As the project concludes, it is important to note that a conclusion is not a suggestion of finality or absolute assuredness of the outcomes; rather, a conclusion serves as a guide, offering logical ways to move forward based on the interpretation of the data (Lester, 1999). This conclusion chapter includes a discussion regarding research and project outcomes, as well as potential organizational, institutional, and professional contributions.

6.2 RESEARCH OUTCOMES

6.2.1 Introduction

The intent of this project was to design a phenomenological study to explore gaps in the literature focusing on collaboration between occupational therapists and general education teachers working together in the classroom environment. The research design further sought to inform the revision of the S'cool Moves training framework based on the research findings and compelling evidence relevant to collaborative success. The research design included a second phase research method (quantitative) to triangulate the phase one (qualitative) findings and validate the efficacy of the revised training program.

In order to provide services for students with special needs in the least restrictive environment, collaboration between support staff and teachers is essential. Federal mandates in the United States' school systems, as well as professional organizations such as the

American Occupational Therapy Association (AOTA), support collaboration in general education classrooms as best practice; however, the literature lacked sufficient studies to guide practice.

6.2.2 Research questions

This workplace-based project sought to answer two research questions:

1) *How and to what extent do general education teacher and occupational therapist pairs in the USA collaborate successfully and to what extent do the systems, assumptions, and worldviews enable or disrupt such collaboration in primary school classrooms?*

2) *How and to what extent does the S'cool Moves collaboration training framework integrate relevant theory and meet the needs of stakeholders in the teacher-therapist collaborative relationship?*

6.2.3 Methodology

In order to answer the research questions, the methodology adopted by the study assumed a pragmatist paradigm and mixed methods research design. Phase 1of the study was qualitative and sought to gather rich, deep data in order to understand the phenomenon of collaboration between occupational therapists and general education teachers. A total of eighteen teacher-therapist pairs participated in the research.

The second stage of the study sought to measure the extent to which the revised training framework met the needs of the stakeholders by asking training session attendees to voluntarily complete the workshop evaluation survey upon completion of their training sessions. Descriptive data gathered provided evidence that the revised training framework met the needs of the stakeholders. Project outcomes for Phase 1 (the interview portion) and Phase 2 (the evaluation survey) are discussed fully in the next section.

6.2.4 Findings

Through the use of the Causal Layered Analysis (CLA) framework, data was gathered regarding deeper layered meaning that is not always immediately observable. The

questioning format served to uncover and unpack the pairs' assumptions, worldviews, myths, and metaphors regarding their collaborative experiences. These deeper layers helped explain how the pairs created a system that worked for their needs despite the lack of an effective existing system. The pairs were challenged to create a system outside of legislative frameworks that supported their individual assumptions and worldviews leading to a holistic understanding of what constitutes a viable system.

When administrators valued collaboration as best practice, the teacher-therapist pairs reported feeling safe to work together in a risk-free environment and discover solutions that the framework did not provide. This created an open system where the pairs creatively discovered practical ways to successfully collaborate. The pairs' collaborations emerged organically due to the need to bridge gaps in the system, including: the ineffectiveness of pulling students out of the classroom environment to deliver services; the lack of support in the classroom for children with behavior and academic issues; and the lack of developmental readiness needed for children to rise to academic demands. The pairs participated in reflective practice, whereby they applied knowledge and understanding of workplace issues to solve challenges that could not be solved by mandated legislative frameworks (Gregory, 1994).

Legislative frameworks seeking to promote successful collaboration between occupational therapists and teachers tended to have low levels of efficacy, based on the research findings. Response to Intervention (RTI) or Multiple Tiers of Systems Support (MTSS) did not, in and of themselves, enable collaboration success. Collaboration success was enhanced through the teachers and therapists participating in training sessions that focused on understanding one another's unique skills sets, limiting discipline specific vocabulary, learning strategies that could be used jointly, and sharing practical techniques to improve student outcomes.

Training and mentoring one another—in combination with developing meaningful relationships—lead to successful collaboration between the pairs. Relative success was not linked to legislative frameworks; however, the research findings suggest that legislative frameworks are more likely to have positive outcomes if preceded by training and the development of meaningful relationships where both parties value collaboration.

Phase 1 of the study focused on answering the following research question:

□ *How and to what extent do general education teacher and occupational therapist pairs in the USA collaborate successfully and to what extent do the systems, assumptions, and worldviews enable or disrupt such collaboration in primary school classrooms?*

The literature review provided evidence of minimal collaboration between occupational therapists and general education teachers working in the classroom environment. This phenomenological study discovered that the antecedent for developing collaborative relationships between the pairs including behavior and academic needs of students in the classroom, a lack of adults in the classroom to support the teacher, feelings of frustration due to not being able to provide effective intervention for struggling students, and administrative support for collaboration.

The extent to which the pairs collaborated varied from planned weekly classroom teaching to informal visits to the classroom. Prior to establishing collaboration time in classrooms, therapists provided training for the teachers in the form of brief introductions at staff meeting to lengthier scheduled professional development time. Variables affecting the frequency and length of time the pairs collaborated included proximity to one another, therapists' caseloads, and teachers' availability.

All pairs reported enhanced collaboration when using the same activities, limiting discipline-specific jargon, and developing safe relationships that supported modifying lessons until desired outcomes were achieved. Desired outcomes ranged from formal to informal and focused on the needs of the teacher and students rather than on occupational therapy-specific goals.

Pairs negotiated barriers often reported in the literature by developing relationships based on individuals being flexible regarding scheduling, respectful of one another's skill sets, creative problem-solvers, and development of relationships that expanded beyond professional needs to valued friendships.

In order to develop successful collaborative relationships, pairs released certain assumptions, perceptions, worldviews, and myths that had limited collaboration previously. As the pairs explored myths surrounding the medical model and educational model, they found benefits in both models and worked closely to discover how to use the best of both models to support students in the classroom.

Through working together in the classroom settings, substantial shifts in assumptions and worldviews were reported. Without working together in the classroom environment, the deeper layers of understanding between the pairs would not have been realized, and it is through uncovering myths, metaphors, assumptions, and worldviews that the pairs created a system that supported their collaboration and led to the pairs reporting successful practice relating to their collaborative relationships in the classroom environment.

Disruptions in collaboration within the system included policymakers being poorly informed as to the developmental needs of children, RTI frameworks being inconsistent between schools, the pairs uncertainty as to what constituted intervention for RTI Tier 1 support, excessive testing of students, and grade level curricula beyond the developmental and cognitive levels of the students.

Based on the literature review showing a lack of collaboration between teachers and therapists, the extent to which the pairs collaborated exceeded collaboration reported in the research both in terms of quantity and quality.

Phase 2 of the study focused on answering the following research question regarding the revision of the S'cool Moves training framework based on the research findings:

⬜ *How and to what extent does the S'cool Moves collaboration training framework integrate relevant theory and meet the needs of stakeholders in the teacher-occupational therapist collaborative relationship?*

The results of the evaluation surveys from ten training sessions showed that the revised training framework met the needs of the stakeholders in attendance. The evaluations provided evidence to support the efficacy of the training framework to enhance collaborative practice between the stakeholders in the teacher-occupational therapist collaborative

relationship and extending the efficacy to a broader constituency including multidisciplinary support staff. Ratings for the ten questions focusing on different aspects of the training framework averaged 4.66 out of 5.

In addition, the opening small group activity introducing attendees to the CLA framework proved to be a valuable experience for developing greater understanding of collaborative practice between multidisciplinary staff members as evidenced by the quality of discussions, poster presentations from each of the groups, and high ratings on questions on the evaluations survey that focused on the CLA activity.

6.3 PROJECT OUTCOMES

As the work-based project concludes, outcomes for Phase 1 and Phase 2 of the study, including project milestones, are discussed.

6.3.1 Introduction

The project outcomes included gathering research focusing on the collaboration between occupational therapists and general education teachers working together in the classroom setting. The research findings informed the revision of the S'cool Moves training framework and produced the revised workshop booklet artifact along with the development of two small group activities. The revised training framework was underpinned by rigorous research findings and key insights. This rigor was intended to present a compelling example of 'best practice' amongst occupational therapists and general education teachers collaborating in classroom environments.

6.3.2 Project Milestones

The project was designed around a research study and included the following milestones regarding the project's overall completion:

☐ completing Phase 1, interviewing participants and analyzing data using the CLA framework's layering process

☐ producing new knowledge through the use of the CLA framework

- ☐ uncovering deep insights regarding the pairs' assumptions, worldviews, myths, and metaphors

- ☐ discovering the research findings provided evidence of collaboration between the pairs beyond the literature review findings both in terms of quality and quantity

- ☐ confirming that collaboration in the classroom setting provides the foundation for building collaborative relationships that meet the needs of the stakeholders

- ☐ revising the S'cool Moves training framework based on the results of the research findings

- ☐ completing ten training sessions using the newly revised training framework

- ☐ evaluating the efficacy of the revised training framework through participants completing evaluation surveys

- ☐ completing Phase 2 of the study through analyzing the data using QuestionPro™

- ☐ expanding the findings of Phase 2 from the initial stakeholders of occupational therapists and general education teachers to multidisciplinary staff members

- ☐ contributing original knowledge based on the research findings including expanding the definition of collaboration, creating the A-E Collaboration Cycle, and, introducing the "One for All" collaboration strategy

- ☐ providing recommendations for enhancing collaboration efforts between the education and therapy fields, including the occupational therapy field embracing action research as a viable method for evaluating outcomes, researchers in the therapy field publishing in general education journals, and researchers in both fields considering utilizing the CLA framework to expand this phenomenological study's findings.

As the project concluded, the researcher sought to maintain Epoch and bracketing in an effort to view the data through the eyes of the research participants so as to report the voices of the participants in a manner that stayed true to the intention of the study—i.e., report the findings through the lived experiences of the pairs.

Understanding the phenomenon of successful collaboration between the pairs required the researcher to take on the role of a "gardener," digging deeper to uncover hidden and valuable insights. Maintaining a learning journal and thinking reflectively assisted with reporting

outcomes that reveal the voices of the research participants and reducing the researcher's bias due to having extensive knowledge of the research topic. As a result, many key insights were gained beyond the researcher's prior knowledge of the topic.

Qualitative Interview: Phase 1

A significant milestone in Phase 1 of the project included realizing the power of CLA to produce new knowledge and improve the quality of the interview process—ultimately contributing to information gathering that reflected the specific forms of knowledge the researcher aspired to produce (Kvale & Brinkman, 2009). Using the CLA framework to interview the pairs and analyze the data provided deep insights into their collaborative relationships by beginning to unpack key insights from the surface level (the litany layer) and moving vertically through the systemic, worldview, and myth/metaphor layers.

The resulting data provided evidence that, in order for the pairs to successfully collaborate, therapists needed to reject the hegemony of the medical model and teachers needed to release themselves from the role of "lone wolf or expert problem solver."

Teachers reported the myth that "anyone can teach" as a dominant (and false) refrain from policymakers and others outside the school system. The therapists and teachers acknowledged that teaching and therapy both require particular skill sets; as a result, the pairs concluded they could solve more classroom problems working in tandem than they could solve when working in isolation from one another.

When teachers and therapists agreed to work together in the classroom setting, rather than therapists servicing students in isolated environments, both groups expanded their skill sets. For instance, therapists increased both their confidence with larger student groups and their understanding of how to modify clinical techniques for classroom settings. In return, the teachers learned from the therapists how to observe students and recognize when behavior issues were exacerbated by developmental lags or sensory issues. The data revealed that the pairs continually nurtured and supported one another throughout the transference of knowledge and skills.

The literature reported therapists commonly lamenting that teachers did not want them in their classrooms; however, the findings in this study differ dramatically from the literature. The teachers reported enormous gratitude for the benefits therapists brought to their classrooms, and therapists reported feeling welcomed and appreciated. For this to happen, the pairs let go of previously held assumptions about one another and their professions, and expanded their worldviews to participate in their collaborative relationships using words like "flexibility," "respect," "support," "appreciation," "trust," and "friendship."

Together the pairs negotiated many barriers to collaboration reported in the literature, including time constraints, unfamiliarity with one another's vocabularies, being trained in two opposing models (medical and educational models), and different worldviews regarding their roles in the classroom setting.

The pairs viewed time constraints simply as a reality inherent in the busy lives of teachers and therapists; as such, lack of time was never reported as a barrier to collaboration. Instead, the pairs created a system of working together defined by flexibility in scheduling, allowance for "drop in" visits as schedules afforded; the increased mutual respect within the pairs led to teachers feeling safe to decline classroom visits if the time was not right, and therapists understanding that the situation was in no way personal.

Vocabulary differences were overcome through training—specifically, acknowledging that the medical and education models use different vocabulary to describe similar things. The therapists agreed to limit their use of medical terminology and the teachers remained open to learning new vocabulary to the extent that it made sense to them. For instance, the pairs discovered that the term "behavior" had very different uses for each of them. Teachers tended to use the term "behavior" to describe anything that needed correcting, whereas therapists, as one teacher described it, "have a filing cabinet in their heads filled with all kinds of fancy medical terms relating to student behavior."

When appropriate, the therapists used medical terminology to identify the underlying causes for behavior issues. Teachers reported enjoying learning more about behavior issues that were sensory-related, and commented that they would like more training in the area of sensory processing and its relationship to classroom behavior. Though the pairs released the

medical model hegemony, the teachers viewed the medical model and educational model as symbiotic and essential for a holistic understanding of children in the classroom.

Completing the pairs' interviews and analyzing the interview transcripts completed Phase 1 of this project. Extensive insights were gained as a result of questioning participants using the CLA framework; these insights were reported extensively in Chapter 4. The research findings provided evidence for revisions and improvements to the S'cool Moves training framework, notably including two smaller group activities directly influenced by this project.

Through data analysis, the power of CLA to provide deep insights and greater understanding between individuals from different professions became evident. For this reason, the researcher introduced participants to CLA during an introductory small group activity. Appendix H provides sample images of the opening small group activity, illustrating the variety of responses and depth of understanding the participants gained through participation in the CLA activity.

An additional closing group activity was integrated into the framework, which allowed for participants to design a collaboration implementation plan based on the A-E Collaboration Cycle (developed as a result of the research findings). The A-E Collaboration Cycle highlighted the steps the pairs reported that facilitated their successful collaboration, and served to provide an entry point in the research to develop a framework to guide professional practice.

Included in the revised training framework was a workshop booklet highlighting the research, theory, strategies, and specific techniques designed to support and enhance collaboration; the research findings underpinned the booklet revisions. Within Chapter 5, Table 5.1, compared the original workshop booklet to the revised workshop booklet, and provided rationale for retaining, deleting, or adding items based on the research findings within each layer of the CLA framework (refer to the accompanying CD to view the revised workshop booklet).

Revised Training Framework Evaluation Survey: Phase 2

Surveys completed by participants from nine separate training sessions provided feedback regarding the revised training framework; the feedback measured the degree to which the participants valued the training elements, as well as whether the training ultimately enhanced the participants' understandings of key elements of collaboration success. The positive survey responses, as reported in Chapters 3, 4, and 5, showed the revised training framework to be an effective training tool to enhance and expand collaboration between occupational therapists and general education teachers.

The evaluation survey results from one additional training session is reported in this chapter due to the organization using a proprietary evaluation form that differed from the S'cool Moves evaluation survey form. The rationale for including the additional survey results in this chapter is threefold: the supervisor was able to provide details regarding the number of support staff for each specific discipline; the results of the survey showed a generalizability of the revised training framework to a larger audience consisting of multidisciplinary support staff; and open-ended survey comments from the attendees provided evidence of the framework's efficacy in enhancing multidisciplinary staff members' confidence and willingness to participate in collaboration. Table 6.1 highlights the multidisciplinary participants present at the workshop.

Table 6.1: Multidisciplinary team affiliation for tenth workshop training session

Multidisciplinary Team Affiliation	Number of Professionals in Attendance
Resource Room Teachers	5
Life Skills Classroom Teachers	7
Social Communication Classroom Teachers	5
Social Learning Classroom Teachers	4

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Speech Language Pathologists	2
School Counselors	5
Clinical Psychologist	1
General Ed Teacher (2nd grade)	1
Autism Consultants	5
Support Specialists	4
Classified Behavior Cadre	8
Licensed Behavior Cadre	1
Total in Attendance	**48**

Source: Developed for this research.

The participants' evaluations of the training are summarized in Table 6.2. Evaluations completed totaled 43, an 89.58% completion rate.

Table 6.2: Hillsboro, Oregon participant evaluation average rating

POOR = 1 2 3 4 5 = EXCELLENT	AVERAGE
Please rate usefulness of this training	4.88
Please rate the information provided in this training	4.95
Please rate the level of expertise of the presenter of this training	4.95
Please rate the level of ability in providing this training	4.90
Would you recommend this training to a colleague	4.95

Source: Developed for this research.

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Due to this training session being provided for special education staff only, general education teachers were absent in this particular case (with the exception of one general education teacher invited by the supervisor). Staff members were given the task of sharing the training information with the schools they serviced—hence the evaluation prompt, "Please rate the level of ability in providing this training." Many staff members commented on the survey "…it would be great to have this available for more general education teachers." Support staff acknowledging the importance of participating in training with general education teachers is an important step to improving collaboration and validates the teachers' comments during the interviews expressing the need to be included in training provided by special education departments.

As discussed in Chapter 5, complexity is one of the five elements related to how quickly an innovation is adopted, or rather, ease of use (Kaminski, 2011). Comments from participants relating to the framework's complexity included, "How quick and simple these strategies are and that they are not only for special education," and "Quick and simple to do—proactive tools!"

It is interesting to note that many participants recommended that the general education staff would have benefitted by being included in the training that was provided only for the special education staff. In this study, the teachers reported that the lack of invitation to special education training limited their abilities to handle difficult behavior (and academic issues resulting from this behavior). This training validates the notion that including general education staff in special education training offers merit for improving collaboration.

6.3.3 Project outcomes: summary

This work-based research project sought to answer two questions regarding how and to what extent occupational therapists and general education teachers collaborated in the classroom setting. Through the use of the CLA framework, the interview questioning strategy and data analysis process uncovered deep insights that thoroughly answered the research question for Phase 1 of the study.

An additional outcome of the study focused on revising the current S'cool Moves training framework based on the research findings. Rationale for deleting, adding, or maintaining training framework content was based on research findings within each layer of the CLA framework (litany, systemic, worldviews, and myth/metaphor).

Two small group activities were developed as a result of the research findings, a) the opening CLA small group discussion, and b) the closing small group activity focusing on designing A-E Collaboration Plans.

In order to determine the efficacy of the revised training framework, the revised framework was used in ten training sessions. Attendees were asked to voluntarily complete a ten-question evaluation survey to determine the extent to which the training framework met the needs of the stakeholders.

Using an online program, QuestionPro™, descriptive data results showed high levels of agreement that the training session content met the needs of the attendees. Open-ended responses furthered the findings with participants recording personal reflections on the value of the training to enhance collaboration and provide the research, theory, and practical strategies needed to further their collaborative efforts.

6.4 CONTRIBUTIONS

Research at its core is designed to make positive contributions that aid in understanding challenges, uncovering deeper meaning in the lived experiences of others, finding potential solutions, highlighting the needs of marginalized groups, or shining the light on matters of societal importance (Creswell, 2013). Additional contributions may include participating in research to expand one's own personal intellectual goals, supporting institutional research aims, expanding professional knowledge, or providing insights that communities of practice may find valuable. Contributions specific to this study are discussed in the following sections.

6.4.1 Institutional Contributions

The study adopted CLA to provide a theoretical framework in identifying and framing the study to rigorously answer the research questions. A premise of the study was that addressing the 'headline data' (visible manifestation of the issue) would not be sufficient in achieving sustained and meaningful transformation in practice. CLA provided a means to gather the depth of information and understanding essential for answering the research questions. Using CLA both as a research framework and a small group activity during workshops highlights the versatility of CLA in terms of its use for rigorous research projects and its practical application in situations where members from a variety of disciplines come together in an effort to find common ground.

As discussed in Chapter 5, CLA was most effectively received and utilized by the participants of the small group activity when the name for the method and the layers were not named specifically at the outset of the activity. For teachers, therapists, and support staff, using terms like "causal," "litany," and "worldviews" may give the impression that the method is too difficult to use because the vocabulary is too difficult to understand, when in fact, CLA is a versatile tool with enormous potential when used to understand challenging situations and find solutions among stakeholders from a variety of disciplines and backgrounds.

The terms "integrate" and "integrated" are often used in the field of education; while utilizing CLA, the integration of elements within the layers became apparent and worthy of mention. For educators interested in using CLA, there may be an opportunity to connect with existing education vocabulary by viewing the layers in terms of being integrated, where the term "integrate" characterizes a method for blending layers of meaning into a unified holistic view of the issue or topic being analyzed.

Through the use of the CLA framework during Phase 1 of this research project, the layers formed a unified whole in terms of understanding a complex topic and analyzing how the variables within each of the layers come together to create a holistic picture of the phenomenon that was studied—in this case, successful collaboration.

The project provided evidence that CLA methodology holds vast potential to offer insights and make valuable research contributions to the fields of education and occupational therapy. Institutions contributing to the body of knowledge in the education and therapy fields would benefit by adding CLA methodology to their research protocol. This study makes the institutional contribution of providing a research format that other researchers in institutions may easily replicate and modify to meet the research needs of their constituents.

A summary of contributions is as follows:

- ☐ address the gap in research and expand knowledge in the area of collaboration between occupational therapists and general education teachers working together in the classroom environment
- ☐ introduce CLA framework and its potential to deepen understanding and insights relative to collaboration efforts between members of the education and therapy professional communities
- ☐ development of a training framework, underpinned by research, to enhance the quality of collaboration between occupational therapists and general education teachers
- ☐ application of research to guide professional practice within the education and therapy fields
- ☐ evaluation of the training framework to provide evidence of efficacy

The contributions culminated into solving the work-based issue for S'cool Moves by providing rigorous research to underpin the rationale for theory, strategies, and activities included in workshop training sessions. Due to the completion of this project, S'cool Moves, as an organization, delivers leading-edge collaboration training based on research that provides compelling evidence of best practice as reported by the pairs who participated in the study. Best practice, through the eyes of the lived experiences of the pairs, differed from best practice as reported in the literature or guided by legislative frameworks due to the pairs creating a system that supported their needs rather than continuing attempts to collaborate within a limited system where the needs of the teachers, therapists, and students were not met. Through the expansion of knowledge based on the research findings, S'cool Moves trainings serve to contribute positively to the stakeholders in the education and therapy

professions by guiding professional practice based on the reported lived experiences of the pairs who participated in this project.

6.4.2 Original knowledge contributions

The completion of a rigorous research project led to professional expansion in terms of the ability to present a complex investigation and demonstrate intellectual independence and a high level of critical thinking in generating original knowledge. This project advanced the current body of knowledge through applying innovative interdisciplinary approaches to understand important work-based issues and add value to contemporary learning communities in the education and therapy fields.

Seven key professional contributions of this research project are as follows:

- □ completion of a rigorous research project that integrated empirical, methodological, and theoretical knowledge that engaged current work-based issues and contributed to professional practice
- □ expansion of current definitions of collaboration to include attributes reported by the pairs in the study that have not been included in current definitions
- □ uncovering of the gap between the education and therapy fields regarding using action research methodology to determine collaboration outcomes; action research is used widely in the education field whereas there is limited use of action research in the occupational therapy field
- □ application of CLA outside of the Futures' research field—a promising method and framework for change and transformative thinking with application to the education and therapy fields
- □ development of the A-E Collaboration Cycle—serving to translate the research findings into a model to guide professional practice
- □ completion of the revised training framework, an original artifact, for training occupational therapists and general education teachers in best practice for collaboration within general education classrooms
- □ evidence of the revised training framework meeting the needs of the stakeholders by translating research into originally-designed strategies for enhancing collaboration.

An additional broad-reaching contribution is the observation that literature emanating from the general education and occupational therapy fields tends to remain within their own circles of influence. Members from the field of general education, could benefit by reading literature produced from the occupational therapy field. Though the occupational therapy field strongly endorses collaboration as best practice, their research and literature focusing on collaboration has potential to inform a broader audience beyond the therapy community.

A consideration posed to the AOTA is for its researchers to expand therapy research beyond the borders of the therapy profession, and publish pertinent research in education publications through The Association for Supervision and Curriculum Development, National Teachers Association, or the International Reading Association. By doing so, readership of important therapy research and contributions would expand, potentially improving the quality of collaboration between the education and therapy fields.

In addition, the education field embraces action research as a means to inform practice and engage in reflective practice (Schmuck, 2006). The occupational therapy field's literature was found to be devoid of references to action research. The therapists and teachers interviewed for this study participated in action research, but the pairs did not recognize their efforts as such. Discovering the lack of action research in the therapy field serves to broaden respective methodologies that could close the gap between medical model research and educational research.

Highlighting the potential benefits of action research as a way for therapists and teachers to participate in reflective practice shows promise in supporting therapists as they move from clinical practice to instructional practice in classroom settings. Employing the expertise of researchers in universities as a means for guiding research studies could positively impact the reporting of research findings in the literature. As teachers and therapists are often occupied with daily tasks, partnering with universities could be a worthwhile opportunity for collaborators to document and report their outcomes and ultimately inform practice.

6.4.3 Personal Contributions

As discussed in the Chapter 1, the researcher's personal belief in the importance of being a lifelong learner and reflective practitioner led to the completion of this project. The candidate embarked on this academic journey in search of new points of view, deeper insights, and expanded thinking regarding the workplace challenge of providing evidence-based training for educators and therapists. Throughout the process, the candidate evolved into a researcher with the capacity to read, interpret, process, and evaluate the work of others in relation to one's own epistemological, ontological, and methodological assumptions. This, in turn, positively impacted the professional tone and leadership qualities essential for providing leading-edge training and staff development for schools, organizations, and state therapy associations.

6.4.4 Contributions to Professional Practice

Interpreting the research findings and underpinning the S'cool Moves training framework with evidence-based research provides an important contribution to professional practice for general education teachers and support staff. The research findings supported the efficacy of the training framework and its value to stakeholders.

Of particular merit, the research findings produced data underpinning the development of the A-E Collaboration Cycle. Currently, no framework exists highlighting elements of successful collaboration between occupational therapists and general education teachers. Figure 6.1 serves to provide a visual reminder of the cycle that was discussed fully in Chapter 5, including the rationale for its addition to the revised training framework.

Figure 6.1: A-E Collaboration Cycle: Occupational therapists and general education teachers moving forward with collaboration

Source: Developed for this research.

The cycle serves as an introductory model, and provides a collaboration framework where none exists currently for therapists and teachers. As the cycle is used in school settings, modifications and improvements are encouraged in order to expand the utility of the cycle.

The A-E Collaboration Cycle originates from the narratives provided by the teacher and therapist pairs in this study. For instance, the inclusion of the administrative support step within the cycle is evidenced by comments from the pairs regarding the importance of having administrative support. A quote from a teacher in the study illustrates this point,

> "Our assistant principal really wanted a lot more services given to our kindergarten in general. She was having us do a flooding model where our speech and occupational therapist came into classrooms at least once a week. The first year it was the occupational therapists who came in one to two times a week and was in the classroom doing a thirty-minute session with everyone in the class in addition to servicing individual pull-out student times. This was a really neat thing for me to

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see because I don't think I ever really thought about the things we do as kindergarten teachers as meeting those needs. I had always just seen individual therapy and didn't think we could do whole group. She brought in different things and said 'Here's something you can do after I leave'. That was the first year mandated by our administration. Over the years somehow the two of us meshed more than the other people in our team, and for some reason, I always seem to have the kids who have the most needs as far as sensory integration, so she was coming into my room a lot more and working with my kids. I asked her questions regarding what I could be doing for my kids who are struggling."

If not for the assistant principal valuing collaboration between the support staff and the general education staff, this teacher would not have been exposed to the occupational therapists' valuable skill sets that offered support for all students in the teacher's kindergarten classroom. A therapist from the study commented,

"I've had both situations where administration outside of the building doesn't understand what happens in a classroom on a day to day basis and made it very difficult [to collaborate in the classroom with the teacher]. Now, I have an administrator who is super supportive of doing anything that is going to help the kids. She gave me leeway to change schedules a little bit or try something new and outside the box."

Another teacher in the study added,

"It's unfortunate that administrators lose sight that you have to educate the whole child, not just the academic piece. Their whole self: the emotional, mental, the physical, the academic. It all has to be addressed for them to be successful, just like for any adult. You're not going to do a job if you're miserable, sitting for six hours without a break. You wouldn't be able to function well at your job either."

In contrast, a teacher in the study shared a positive experience regarding the principal,

"I had the great fortune that the principal at the elementary school was willing to work with us. She came to a little workshop that [the OT] did for the teachers, and

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she was so impressed with it that she asked us to bring the strategies into the classroom. Our principal is right on board with it."

As the study uncovered, there is confusion regarding guidelines for therapists in terms of offering support to students in the classroom. As one therapist shared,

"We do run into little issues with higher administration with rules about who can be with special education students. One year, it's the rule that if there is one special needs child then you can help everyone in the room. The next year it will be that you can only help that one child. Those kinds of things get in the way of helping the children in the classrooms. It's really frustrating. Sometimes, I respectfully ignore the rules and help the children who need it."

Appropriate training for the support staff and general education staff was a need expressed by teachers and therapists alike. For instance, one teacher expressed a concern that,

"Our special needs team has a weekly meeting where they discuss the kids with the most needs. I wish as a classroom teacher, we had that same opportunity to be at those meetings so we could sit down and problem solve too. We're the ones who spend the majority of time with kids. We have so many resources at our school for our special ed team, but we don't always get to pick their brains, and they don't get to come in and see those critical moments where we're at our wits' end with the kids and don't know what else to do with them."

The general education teachers lamented that special education provides training for their staff but general education staff are rarely invited to attend the trainings provided for the special education, thus limiting the teachers' knowledge of specific tools and intervention strategies that could be helpful for their students.

The teachers appreciated the therapists who provided training for them, even if the training consisted of quick five-minute strategies. For example,

"We were learning how to count to 100, and I was having them clap. [The therapist] came in and said, 'Let's help them work on crossing the midline and touching their

elbows to their knees.' It was simple and now its something I've used for the last four years. Some of the kids aren't successful at the beginning of the year, but now they're really trying. She gave a simple tip, and it has benefitted all the kids. Little things like that have become a part of our normal day. We've been doing calming techniques for the entire classroom, and they know its part of the routine. The more we could do together, and bringing in more that she knows can benefit all the kids in general, not just specific to the kids on IEPs."

Another teacher from the study commented,

"The inner city schools that are failing or struggling are the ones having the most difficult time getting the OTs in [the classroom] because its taking away academic time. People are so short sighted. They don't understand that there would be so much more academic focus and rigor and ability to stay with the teacher if they took the time to let the OT train the teachers and come into the classrooms. You don't need them there all the time, you need the OT to show you how to do it and then implement it."

The therapists and teachers offered keen insights as to what constituted a successful training. As one teacher shared,

"When you're delivering information to a teacher, don't bog them down with the medical stuff. We have an educational background. We want the real life, day- to-day information that we need to be successful. Maybe the administration would buy into it more, like the upper administration (superintendent), if you steeped it first in the medical background and then remind them, remember when you were in the classroom, let's connect those together. Here's the education piece and the medical piece, and here's how they connect.

When training focuses on tying in the foundation skills with academics, more success is reported in terms of teachers being open to trying strategies. For instance, a therapist in the study explained,

"Starting out, I did a lot of foundational stuff that kids need to be successful and over the years tried to put it with academics, but it's been hit and miss. It feels like with S'cool Moves, it is so easy to make what I do academic and tie it into what they're doing in the classroom. It has made a huge difference that its opened my eyes to what is going on in the classroom, and how I can support these students. When I show how easily it's linked with Common Core, that's the magic word, and opens the door to doing mini in-services in different classroom."

An important aspect of therapists in classrooms is the understanding that they are in the classroom to help students access curricula. One teacher shared how the OT that came in to help one student noticed the rest of the students needing support,

"The OT came in to work with one of my students and sat with him, but I noticed all the rest of the students were seeing what she was doing with him, and they wanted to try the movements, going from one center to the next. Then, we had them try doing it and it helped them stop to think. They were able to move and apply those skills and get back into the groove and be able to take a break before we moved to the next thing. They sat there and focused better during the transition."

Numerous comments like the one highlighted above, led to the introduction of the "One-for-All" strategy within the "Begin Training" stage of the Collaboration Cycle. This strategy shows promise in supporting therapists who desire to be more inclusive with service delivery for children with Individual Education Plans (IEPs). The strategy affords the therapist greater comfort in using hands-on support while moving towards classroom support. For example, a teacher in the study describes a therapist using this technique,

"She's taken a couple students at a time and done a lesson with them so they can come back to the classroom and show the other students. Another time she did the activity with the entire group at once. It was something she wanted to initiate in our classroom. We had decided ahead of time that this would benefit all my kids, not just the one or two she was focusing on. She did it with my entire group so that we could do it after she wasn't there. We can do it any time."

Another teacher in the study, referring to working with an occupational therapist, emotionally exclaims, "I hope she never leaves me!" The teacher elaborates,

> "Her presence in the classroom is so positive. I expected someone coming in and working with that one student and only that one. She comes in, and I see kids looking at what she's doing over there, and she'll help them too, not just that one student. I really like that because she's willing to work with others, not only the students that she has to work with. A lot of our school is pull-out, so kids leave the room for the speech room. When the OT comes in, it's awesome to collaborate and work with her."

Figure 6.2, below, provides an illustrative reminder of how the "One-for-All" strategy works. One student is taught a strategy in a pull-out situation and then the therapists and student brings the strategy into the classroom so all children can benefit. As the therapist expands the strategy to other classrooms, a school culture of support unfolds. The strategy used for one student, is shared with all students in the classroom. In turn, all students who know the strategy provide support for the one student for whom the strategy was initiated. A school culture of support for all students continually grows and takes root.

Figure 6.2: Illustrating the new "One-for-All" strategy for service delivery

Source: Developed for this research.

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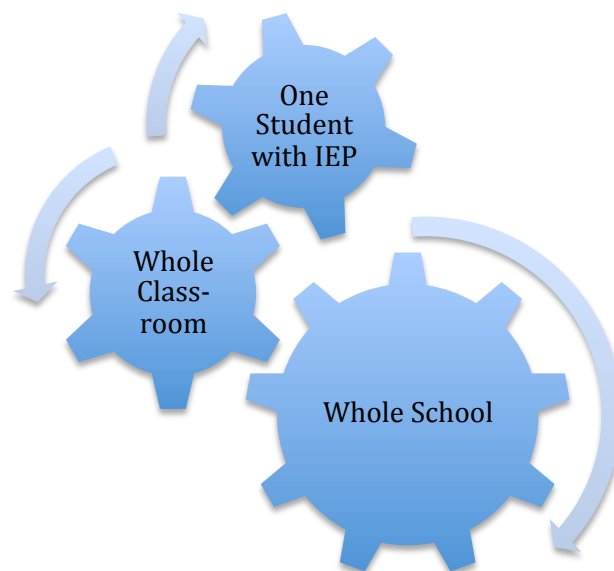
Expanding the training process includes providing on-going support for those involved in collaborating with one another so that more strategies like the One For All strategy can be explored and implemented. As the study uncovered, all too often team meetings, grade-level meetings, and PLCs are void of multidisciplinary members. The study highlighted many instances where the pairs reported that they did not attend one another's meetings but that it would be beneficial to do so. As one teacher expressed,

> "Every Wednesday is the PLC where we look at the data and collaborate. We're
> required to do it but it's after school hours. We get paid for that time. We are always
> looking for more information. That would be great for us to include the OT and look
> at action research."

Including action research design became an essential element in the Collaboration Cycle due to teachers and therapists intuitively participating in a flow similar to an action research cycle but being less familiar with the elements of action research. Action research shows promise in providing a method to collect data and observe change over time while blending outcomes deemed important for those subscribing to the medical or educational models. An example of a teacher explaining something similar to an action research flow is as follows:

> "It was short bursts of a strategy. You would know immediately what worked and
> what didn't. It was a form of assessment. You don't have to make it formal. Kids
> aren't planned. I'll try it and if it doesn't work, we talk about it and change until we
> work it out and mix it with something that does work."

Many pairs reported informal observation as a means to determine if collaboration was successful. For instance, one teacher describes her informal observation,

> "One of the activities we did several months ago was getting [the students] to focus
> and settle down and get their bodies ready. We took them through a series of
> exercises through the body, in tune with a particular song. We showed [the OT] the
> exercises and it was obvious to see how it calmed the kids and got them ready to
> focus on a task. This week, [the OT] came in and worked with small groups to do
> some exercises, working on core and posture. This morning, she came in and I said,

'Watch this!' The entire class was on the floor and went through the whole series to show her. She was pretty excited to see that."

The teacher continued explaining,

"I have a really busy class this year, so they really need the activity: a lot of exercise, it fits right in. It takes a little bit of time, but then the time is made up because I have them focused and ready, otherwise, I'm fighting a losing battle because they're all over the place. It brings everybody together and focused so when it's time to get our work done, they're ready because they've had time to move."

The final step in the Collaboration Cycle includes evolution and evaluation. As the pairs expressed time and again, their relationships grew out of continually checking in with one another, evaluating their professional practice, and growing in their understanding of what it truly means to collaborate with one another. As a therapists in the study shared,

"All of a sudden, it's all about collaboration, whereas before we were pretty much on our own. I feel as a therapist, therapy doesn't work unless you're talking to the teacher, working in the classroom, implementing strategies to help these children be successful in their environment. If you're not collaborating, the kids could be a certain way with me, but if they're not generalizing the skill to the classroom, then how much am I helping them? It's working because I'm onsite and full time. I know how important it is to go into the classroom and speak to the teachers because they don't have the full picture of a child unless they're in the room seeing the full picture of what I'm doing and how I'm working with the child. It's a totally different experience when I'm in the classroom working with the child."

Ultimately, this project converted research into practical application that may positively impact professional practice in the following ways: designing a revised training framework with the aim of engaging stakeholders in professional dialogue during training sessions through the small group CLA activity; developing practical strategies supported by the research findings; and presenting a cohesive framework to enhance collaboration between therapists and teachers.

6.5 CONCLUSION

The aim of this study was to conduct rigorous research while being faithful to representing the participants' voices, all while being aware of possible biases inevitable in the analysis and the editing process (Lester, 1999). It is with ethical considerations and beneficence that the researcher interpreted and described the collaboration between general education teachers and occupational therapists. As is the benefit of conducting phenomenological studies, deeper issues have been uncovered and the voices of the participants were heard in an effort to bring to the surface assumptions and myths that limit change, ultimately informing and transforming practice (Inayatullah, 2012).

The success of the revised training framework serves to illustrate the power of professional doctorate programs to move beyond pure research, and into the application of findings in order to solve important work-based issues that potentially impact not only the candidate, but also the broader circles of influence including institutions, organizations, and most importantly, the people whose lives the work touches and hopefully enhances.

A key precept of phenomenological research is making recommendations (based on the research data) that may lead to more research possibilities for the future, a better situation for those involved in the study, or suggestions for action (Lester, 1999). Recommendations for future studies include broadening the scope of investigation to include gathering information by focusing on collaboration within certain demographic areas or groups, replicating this study to include other school staff disciplines, and conducting a similar research project on a larger scale through AOTA. For the benefits of collaboration to be realized, the research community needs to bridge the gap between desired outcomes and research that offers insightful and practical avenues to achieve those outcomes.

In order to experience the benefits of collaboration, rigorous research must inform professional practice. As the research findings demonstrated, the pairs, through their own volition explored assumptions, worldviews, myths, and metaphors that limited their ability to collaborate with one another. By creating collaborative partnerships, the pairs developed or enhanced their skills within an organized system that capitalized on knowledge, resources, and abilities in order to meet their professional needs and the needs of their students.

The ultimate success of a research project can be measured by how well the research captures real-world behaviors and beliefs (Tingley, 2014). Through the use of the CLA framework, deep insights were gained as a result of the questioning format and layering process. Data analysis went beyond intuitive interpretations to presenting an explicit analysis process that lends itself to illuminating a process for representing interview data that can be replicated (Miles & Huberman, 1994).

Through rigorous research, this project supports teachers' and therapists' collaborative efforts by providing evidence-based research that informs practice, makes original contributions to knowledge, elevates the knowledge base within professional learning communities, enriches the working environments for professionals working in United States school systems, and ultimately enhances the quality of support for all students in the inclusive classroom environments.

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APPENDICES

APPENDIX A

LEARNING JOURNAL

March 23, 2013	approval for research granted through USQ Ethics; began thinking about the overall research design and the work ahead dealing with justifying the research design; a lot of new information and academic vocabulary to sort through and understand as it relates to research design
May 1 - 28, 2013	completed initial methodology to justify the research design; very confused regarding different methodologies and best design for the study; after reading many books on different methodologies and talking with professors, it was determined that a pragmatist paradigm using a phenomenological methodology best suited the aims of the study; began reading about CLA to determine if this methodology would provide a deep, rich description of the phenomenon of collaboration between occupational therapists and general education teachers
June 1, 2013	completed separate IRB approvals for Anchorage, Alaska and New York City, NY; NYC requires completion of an online ethics course in order to approve any research in NYC department of education schools; completed the course
June 3, 2013	Anchorage, Alaska schools denied approval for the research which was disappointing considering that the researcher had just completed a course for their support staff who had volunteered to participate in the research; reasoning for denial was that they can not obligate any staff to do anything that "takes away from their instructional day" even though assurance was provided that the interviews would be on staff's own time, outside their obligated school day; NYC DOE approved the research; approval went smoothly because students

	were not part of the research; when students are involved, approval is much more difficult
June 12, 2013	began thinking about how to conduct interviews and reading material about limiting bias and bracketing due to knowing a lot about the topic; working on positioning myself in the researcher as the gardener metaphor depicts: digging for deeper meaning and bracketing as much as possible
June 17, 2013	completed first and second interviews; went well and found the interview process interesting
June 19 - July 16, 2013	completed several more interviews; still early in the process; questions appear to be getting the depth desired
September 20, 2013	GoToMeeting™ with Professor van der Laan: discussed the format for entering data; determined Excel spreadsheets would be the best way to enter and view data; discussed if data should be entered at the end of all interviews or if it could be entered after a cohort is completed (6 teachers and 6 therapists); the literature recommended building data sheets as one goes or else end up in the end with too much data to decipher; also entering as one goes offers the opportunity to ask future interviewees about current trends and ask questions that deepen the initial information gathered
October 13, 2013	GoToMeeting™ with Professor van der Laan: discussion regarding interpreting first round of interviews in relation to using Causal Layered Analysis; looking at teacher and therapists' definitions of collaboration and relating this to the literature; broadened understanding of data and how to dive deeper in second cohort; curious about difference in action learning cycle and action research cycle; need to explore more
October 15, 2013	began taking notes in researcher journal to highlight key points that may get missed in transcripts and that deepen understanding from previous interviews; interviews are interesting in that, along with

	answering the research questions designed for the interview, also learning a lot about how the pairs are expanding on S'cool Moves and creating professional learning communities
October 17, 2014	keeping notes in a journal helps keep the interview focused and keep thoughts organized for follow-up questions
October 21, 2014	sometimes it is difficult to not turn the interview into a S'cool Moves boot camp because during the interview, the interviewee is looking for answers; need to really pay attention when this happens, make notes for follow-up later after the interview
October 24, 2013	at the end of the interview, participant recommended articles to further the research; enjoy when the interview takes unexpected twists and turns; very conscious of bracketing and listening for new information; in this case, the term "professional learning community" was introduced and became a new term to listen for in other interviews
October 28, 2013	listening closely is an important attribute of a good interviewer; new insights continue to emerge due to continual bracketing and making a conscious effort to listen as openly as possible; new insight during this interview involved "proximity"; the location of therapists and teachers to one another contributed to collaboration success
November 3, 2013	GoToMeeting™ with Professor Luke van der Laan: discussed the term "sustainable"; new understanding that sustainable infers that nothing changes; read article he wrote and increased understanding of term; S'cool Moves evolves and grows with reflexive practice–this is not the meaning of sustainability; continual improvement and change is wanted for S'cool Moves
November 17, 2013	GoToMeeting™ with Professor Luke van der Laan: discussed writing literature review integrating a multidisciplinary approach expanding beyond therapy and education journals; discussion around

	constructivism and pragmatism; realizing that stating a knowledge claim and assumptions is complex and requires a lot of thought and reading; examining one's belief system
November 18, 2013	bracketing and listening closely offers opportunities to expand current knowledge base; during this interview new knowledge appeared in the form of PBIS and it being a medical model approach to behavior
November 25, 2013	this interview provided confirmation of previous interviews with proximity being a key factor contributing to positive collaborative experiences between pairs
November 26, 2013	interesting notes on this interview regarding the teachers wanting pull-out as opposed to the former understanding that teachers wanted push-in; again, noting that conflicting information surfaced that did not confirm prior knowledge of the subject matter provides encouragement regarding bracketing effectiveness during this process
December 8, 2013	GoToMeeting™ with Professor van der Laan: discussed the possibility of adding CLA to the training format and if it would be of value as a transformational tool; look for the teachers and therapists to discover a story or narrative that both could embrace
February 10, 2014	GoToMeeting™ with Professor van der Laan: discussed action research and reviewing some of the data, recommended looking at the pairs' process to see if it fit in action research; began looking for the process in interviews and mentioned the term in this interview with the response from the therapist, "not familiar with action research"; began thinking about the fact that general education teachers use action research to determine effectiveness of programs; looking for a gap and wondering, "does the therapy profession recognize or discuss action research?"; being medical model, action research may be seen more as a less rigorous type of research so may

	not be supported in the medical model the therapists are trained in
February 13, 2014	noting interesting division between principals who support collaboration and those who do not; from one year to the next, the pairs may be encouraged to collaborate and then a new principal comes on board who discourages collaboration; backgrounds of principals seems to make a different with pairs stating that principals who were special education teachers were more likely to value collaboration
February 26, 2014	learned about another model–MTSS; unaware of another framework similar to RTI; need to study MTSS and compare/contrast model with RTI; listening in interview for indications the model is more effective than RTI as most interviews to date show RTI to be ineffective in terms of improving collaboration between therapists and teachers
March 20, 2014	realization of term "behavior" having different meanings for therapists and teachers; how does this correlate with ABA systems of behavior management?; continue to look for insights from pairs
March 26, 2014	RTI issues evolve around money, according to one interviewee. There is a debate between general education and special education about who is responsible for the money to implement RTI. Since when did teaching children become two different systems where one group of children belong to one system and another group to another system. USA schools are very divided in terms of providing service to students. It is no wonder that collaboration is a challenge with staff feeling like they provide service to one group or another; another confirmation that the term "behavior" is not clear between how teachers use the term and how therapists use the term
March 28, 2014	discovering metaphors of how pairs felt prior to collaborating; these will be interesting to note how the metaphors changed as the pairs collaborated more successfully with one another

March 29, 2014	co-teaching is a term that is referred to as a "special education" model and not something that OTs would use with general education teachers; the exceptions seems to be when a school is full inclusion, meaning there are no special education classrooms and all children are taught in general education classrooms; references in interviews to ABA methodology needing more use of sensory strategies
April 3, 2014	noticing a trend with teachers saying the OTs would know about RTI and to ask them about it and therapists saying that teachers would know about RTI so ask the teachers about it; interesting how the confusion is so strong around who takes ownership for RTI; deepening knowledge by visiting the national RTI website to review information; the site is very clear and answers many questions; wondering if schools are utilizing the site to help clarify the use of the model; does not appear to be happening at this point
April 6, 2014	GoToMeeting™ with Professor Luke van der Laan: discussed concept of open and closed systems; very interesting discussion around what assumptions gave rise to an open creative system; discussed how to begin writing the methodology chapter; improved understanding of validity and reliability, along with limitations the study might have due to
April 13, 2014	another acknowledgement about the term behavior being misunderstood by teachers and therapists; in this example, the interviewee said teachers look at surface behavior and therapists are the gardeners who dig deeper to find the root causes for behavior; began asking more questions about trends in the research to see if trends resonate with interviewees
April 26, 2014	interesting to note that this interview discussed how the OT and PT were a team; it would be interesting to do a CLA with OTs and PTs to discover why some collaborate all the time with one another and others see their roles as distinctly separate and do not collaborate at all; learned a new term called Integrated Collaborative Teaching

	(ICT); did an internet search to learn more but found ICT to stand for Integrated co-teaching, so unsure about use of this term; ICT was seen as a "dumping ground" for children with special needs; will continue to find out more; issues around goals is beginning to surface; do therapists use OT goals or student goals that come from the teacher; no clear consistency here and seems to be contextual; have notice during workshops that this is becoming a bigger issue as the push for collaboration gets stronger, the question of goals is confusing with therapist unsure, as well as their supervisors
May 12, 2014	completed methodology chapter and received reviews from professors; deepening my understanding of CLA as both a research methodology and a way to analyze data; initially CLA's placement in chapter 3 was in the data analysis section but after comments from Professor Glen Postle, CLA was included in the research design.
May 26, 2014	GoToMeeting™ with Professor Luke van der Laan: discussed writing the literature review; expanding boundaries from education and therapy fields to provide a multidisciplinary perspective of collaboration
June 1, 2014	GoToMeeting™ with Professor Luke van der Laan: discussed CLA in terms of it being a futures methodology and worked on determining how and why CLA would be used in this study; if not for creating alternative future than possibly for understanding why the pairs collaborated and how they created alternative ways of doing their work; reading CLA articles to better understand how CLA is reported in the literature
June 2-July 1, 2014	completed excel spreadsheets and analyzed the data within layers to begin designing draft training framework; many workshops are scheduled so it will work well to use the draft framework in the upcoming workshops; Professor van de Laan recommended attendees complete an evaluation at the end of workshops so the research can include mixed methods with the addition of the

	quantitative survey in an effort to determine if the training framework was found to be an effective contribution to practice
August 4, 2014	GoToMeeting™ with Professor Luke van der Laan: discussed CLA and its possible contributions to S'cool Moves, as a company; discussed the dissertation overview and the content of each chapter; feeling a bit overwhelmed by the detail of each chapter however the guidance from Professor van der Laan makes it seem possible to complete; providing steps along the way is a good way to mentor students so they are not overwhelmed; one day at a time turns into one chapter at a time for doctoral students
June 1-August 31, 2014	began writing chapter 2, literature review; have been gathering articles for a couple years due to completing literature review papers in other doctoral programs; added multidisciplinary research to the review; finding interesting information outside the fields of education and therapy; looking at the work of researchers who are working on defining collaboration and creating a model for collaboration; uncovering many gaps between the education and therapy fields in terms of who they quote when defining the term collaboration
September 2, 2014	received feedback on chapter 2; overall went well with the main comment being that the conclusion needed to be expanded; sometimes it is difficult to keep the writing momentum and toward the end of chapters, it becomes obvious that there was writing fatigue; increased understanding of how people end up completing courses and then losing energy for completing dissertation; the feedback from professors is always positive, constructive, and encouraging; this makes the journey seem possible to complete
September 14, 2014	GoToMeeting™ with Professor Luke van der Laan: discussed the term "litany" and how that is a difficult term to understand with limited time to explain at workshops; wondering if there is a better word that could be used to describe the surface layer; presentations

	have been done using the draft training framework and using CLA; overall the feedback on evaluations have been good with CLA receiving mixed reviews and participants saying they need more time to understand the concept; continue to figure out a way to share CLA in workshops as the value for using it is definitely there; it does take participants outside their comfort zones as does the framework in terms of expanding the concept of collaboration; as a facilitator the challenge is meeting participants where they are and gently guiding them to look deeper at collaboration, beyond the litany layer; CLA shows great promise for the education field
October 8, 2014	GoToMeeting™ with Professor Luke van der Laan: discussed the term "causality" and its potential challenges with other worldviews from the research community; thinking in terms of a broader organic evolution; should MTSS be separated from RTI for the pair from Michigan using MTSS; will know more after training in Michigan
October 16-17, 2014	Michigan training used CLA activity at start with participants answering directed questions within the layers; activity was profound with participants amazed at all the different views and situations within the OT/PT professions; really experienced the value of CLA and its importance to the S'cool Moves company as it seeks to be a leader in collaboration between support staff and teachers; after being in two different doctorate programs in the USA and being in the education program at USQ, the experiences felt like being entirely boxed in with each program and not expanding beyond the borders of what the researcher already knew about training and collaboration; choosing the multidisciplinary degree with Professional Studies has been the most expansive experience; so grateful for the experience in that it has taken the researcher through one's own layers of CLA from the litany of what the researcher thought would improve the S'cool Moves training framework, through all the layers of uncovering and unpacking the researcher's own assumptions, perceptions, worldviews, and myths that limited

	the system currently in place for training therapists and teachers
October 23, 2014	GoToMeeting™ with Professor Luke van der Laan: discussed MTSS and RTI frameworks and observations that the pairs are not relying on a framework to negotiate their collaboration; working outside of the framework due to the pairs' commitment; discussed how to write chapter 4; many insights gained from the discussion regarding how the worldviews support the system; recommended I look at how the policymakers, framework, and leadership enhanced outcomes, had no impact on outcomes, or frustrated outcomes
October 24-November 7, 2014	began writing and submitted chapter 4; a lot of data was gathered and sorted through all the data until the layers became evident; decided to use the term "layer" instead of "levels"; noticed that in literature, some researchers refer to CLA using levels; discussing this with Professor van der Laan, via email, we came to the conclusion that levels represent the data in too much of a linear fashion; "layer" denotes that their is movement and fluidity within the layers
November 8 -November 19, 2014	began writing chapter 5; enjoying being more creative and illustrating the outcomes of the study using figures and models; discovering how much was learned using CLA; referring back to data and chapter 4 to ensure illustrations accurately represent the outcomes of the study
November 20, 2014	GoToMeeting™ with Professor Luke van der Laan: discussed strategies for completing dissertation; reviewed results of evaluations and encouraged by the results; the draft training framework received over 95% rate by participants in terms of their gaining valuable strategies and a deeper understanding of CLA and the collaborative process; the research and artifact produced has positively impacted S'cool Moves presentations and its ability to provide evidence-based strategies and information regarding successful collaboration; this learning journey has deepened my

	respect for well-done research and its power to positively influence practice
December 2, 2014	realizing how much the GoToMeeting™ sessions with Professor Luke van der Laan influenced the quality of this study; as the learning journal is reread in preparation for producing the final chapter of the dissertation, the value of the meetings and continual insights underpin the success of this project
December 8, 2014	While reading *Practical Action Research for Change* (Schmuck, 2006), there was the realization that the CLA teaching process actually fit into action research in that the process for improving the CLA group activity went through the proactive action research cycle of listing concerns and hopes, trying a new practice, collecting data, checking to see what the data mean, reflecting on alternative ways to behave, and fine-tuning practice (Schmuck, 2006).

APPENDIX B

INTERVIEW QUESTIONS

Litany

How do you define collaboration?

Describe how you and your team member have been collaborating.

How did collaborating help students access curricula and improve student outcomes?

How were these outcomes measured, observed, or documented?

Social Systems

What made you want to collaborate? What were the underlying driver's of change?

    Probes

    Did you have administrative support for collaboration?

Was there a guiding document, book, journal, or organization that directed your collaboration?

What role did RTI framework play in your decision to collaborate?

How did you overcome barriers often reported in the literature?

    Probes

    Time

Terminology

Communication

Behavior management

Therapist's discomfort in classroom setting

Therapist feeling like the teacher didn't want her/him there

Conversations at inappropriate times

Lack of explanation regarding efficacy of intervention suggested

Inability for teacher to follow-through on interventions suggested for only one child

Lack of understanding on teacher's part as to roles and responsibilities of OT

Lack of identified collaboration models (co-teaching, etc.) to jointly use

Assumptions/World View

What assumptions did you have going into the collaborative relationship with your team member?

How has collaboration impacted your ability to relate to one another or understand each other's perspectives?

How has collaboration impacted your perceived roles in the classroom?

How do you know when collaboration is successful?

How much of your professional training dominates your view of collaboration?

Our Narrative: Myths/Stories/Metaphors

How has your professional training impacted your collaborative relationship?

    Probes

    Medical model vs. educational model

Are there any beliefs that you previously held true but that you now realize are not?

What has prompted you to collaborate?

Why is it important to you?

What is your story that underlies your desire to collaborate?

Do you have a metaphor you'd like to share that describes successful collaboration?

Is there anything else you'd like to add to this interview? Comments?

APPENDIX C

ETHICS APPLICATION APPROVAL

University of Southern Queensland

Memorandum

To:	Debra Wilson
CC:	Dr Luke van der Laan, Supervisor
From:	Manager, Research Integrity and Governance
Date:	24 May 2013
Re:	**Ethics application**

The Chair of the USQ Human Research Ethics Committee has assessed your revised ethics application and agreed that your proposal meets the requirements of the *National Statement on Ethical Conduct in Human Research (2007).* Your project has been endorsed and full ethics approval granted.

Project Title	Collaboration Between General Education Teachers and Occupational Therapists: Successful Practices Within a Response-to-Intervention Framework
Approval No.	H13REA025
Expiry date	31 May 2015
HREC Decision	**Approved**

The standard conditions of this approval are:

   (a)   conduct the project strictly in accordance with the proposal submitted and granted ethics approval, including any amendments made to the proposal required by the HREC

   (b)   advise (email: ethics@usq.edu.au) immediately of any complaints or other issues in relation to the project which may warrant review of the ethical approval of the project

   (c)   make submission for approval of amendments to the approved project before implementing such changes

   (d)   provide a 'progress report' for every year of approval

   (e)   provide a 'final report' when the project is complete

   (f)   advise in writing if the project has been discontinued.

For (c) to (e) forms are available on the USQ ethics website: http://www.usq.edu.au/research/ethicsbio/human For (d) and (e), diarise the applicable dates *now to* ensure compliance with reporting requirements.

Please note that failure to comply with the conditions of approval and the *National Statement (2007)* may result in withdrawal of approval for the project.

You may now commence your project. I wish you all the best for the conduct of the project.

If you have any further queries please do not hesitate to contact me on 4631 2690 or ethics@usq.edu.au

Melissa McKain
Office of Research & Higher Degrees

Collaboration between general education teachers and occupational therapists in classrooms: A layered analysis of professional practice in the USA

Appendix D

EVALUATION FORM

S'cool Moves, Inc.

Workshop Evaluation

Course Title _____ Date _____ Instructor _____

Workshop Location _____ Name (Optional) _____

School/Organization (Optional) _____ Position _____

1. Causal Layered Analysis (CLA), the opening group activity, helped me understand different participants' perspectives on collaboration.
   ❑ strongly disagree   ❑ disagree   ❑ undecided   ❑ agree   ❑ strongly agree

2. I would use CLA in other situations where understanding of various points of view is important.
   ❑ strongly disagree   ❑ disagree   ❑ undecided   ❑ agree   ❑ strongly agree

3. The theory provided a foundation for why collaboration is important for student success.
   ❑ strongly disagree   ❑ disagree   ❑ undecided   ❑ agree   ❑ strongly agree

4. The training provided useful techniques for enhancing collaboration with other professionals on staff.
   ❑ strongly disagree   ❑ disagree   ❑ undecided   ❑ agree   ❑ strongly agree

5. The week-by-week implementation plan increased my confidence with getting started.
   ❑ strongly disagree   ❑ disagree   ❑ undecided   ❑ agree   ❑ strongly agree

6. The small group activity focusing on CCSS increased my skill level for integrating academics with foundation skills.
   ❑ strongly disagree   ❑ disagree   ❑ undecided   ❑ agree   ❑ strongly agree

7. I have increased my knowledge and grasp of S'cool Moves learning objectives.
   ❑ strongly disagree   ❑ disagree   ❑ undecided   ❑ agree   ❑ strongly agree

8. After attending this training, I want to share what I've learned with others.
   ❑ strongly disagree   ❑ disagree   ❑ undecided   ❑ agree   ❑ strongly agree

9. I would encourage my colleagues to attend a collaboration training like this one.
   ❑ strongly disagree   ❑ disagree   ❑ undecided   ❑ agree   ❑ strongly agree

10. Overall, the training met my expectations.
    ❑ strongly disagree   ❑ disagree   ❑ undecided   ❑ agree   ❑ strongly agree

Optional Comments (These help us to improve our workshops.)
I learned...

I need more information about...

I have questions about/was confused by...

I appreciated...

❑ Yes! Please sign me up for your newsletter. Email _____
                                                                    (Please print clearly)

EVF/071014   PO Box 614 • Shasta CA 96087 • Ph: 530.245.1088 • Fax: 530.245.0282 • info@schoolmoves.com

Collaboration between general education teachers and occupational therapists in classrooms: A layered analysis of professional practice in the USA

APPENDIX E

EXCEL SPREADSHEETS FOR DATA ANALYSIS

Teacher Definition of Collaboration

Summary Sheet Teachers-Definition of Collaboration
Teachers have to learn to work smarter, not harder and collaboration brings that piece to it. Our human energy is not enough; our professional frustrations are always going to be there, they are not going to go away. We can collaborate with others, parents, students, to become facilitators of that learning environment and not dictators of it. It's a win-win situation and I think collaboration is the key to that. I think when we collaborate with specialists, parents, students, colleagues, we learn to work smarter because we work hard enough. It is getting harder, common core, teacher evaluations, the only approach to feel successful is collaboration. We don't have to do it alone. A whole team. The individuals that need the most help, the classroom, the OT, the teacher, the para-pros. We are all collaborating on this strategy used in schools to help students either remain focused or help bring that energy back into the environment to just provide that best learning experience. That's the collaboration is the whole package between parents, classroom teacher, specialists, students and classroom individuals rather than my experience in the past- Ot, student. It was a collaborative effort it was a fulfillment of an IEP. That's the biggest difference, collaboration means we're all working towards the same goal versus fulfilling an IEP.
Being comfortable with each other, being able to say hey that works out well, is there something else that is similar to that that we can try next week or next month, or that was weird the way they took it, originally thought it would be fantastic but it flopped so we adapted it a little bit.
Working in concert with another person, doing different things, working alongside each other, making those things go together. Not necessarily like a team where everyone has the same goal. Collaboration for me is when people combine what they're doing together and help each other to make something new together.
Working togethr to obtain your goals. Work with someone to get new ideas to add to your own. Someone else has other gifts that can bring more and you can mesh it together to be better.
Flexibility, willingness to be a teacher and mentor, willing to sit down with each other and share ideas about kids and willingness to talk about kids and what they need.
It builds that natural collaboration not only between me and the therapists but between me and the kids and the kids and each other. It gets another adult involved with my kids. It's multidimensional. They all feel a part of the community. With pullout, the collaboration piece is missing between the students and how strong of a piece that is, gets missed.
Working together with a common purpose, everyone sharing ideas and listening to each other and respecting the other person's point of views. You try things and work together to come up with lessons or ideas put it into play.
We would talk and she'd give me ideas. To me that was collaboration.
Working with colleagues to build off of each other. We learn from each other. I have seven teachers on my team and we get along so well and their ideas sometimes I haven't thought of or we work together to make those ideas better in order to have student success
Two or more people working together towards common goals for the kids, ourselves, sometimes it's her being the lead, sometimes it's me, everyone working toward a comon goal.
Working together for the benefit of all the kids. It's really simple and really clear cut. I've seen the most successful when you don't have to agree on everything but you're able to find the middle ground and everybody has to give to make it work. It's always about the end game and focuses on the kids and what's going to benefit them. That's successful collaboration.
We each have different things to cover, everyone on the same page, our kids are going to benefit, make sure we're not repeating or covering things we're not supposed to it; it has to flow; each subject and entire school worked together and collaborated as a team and district to decide what all students are learning.

Teacher Litany 1

Summary Sheet Teachers-Litany	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	Total
How do teacher and therapist teams describe successful collaboration within general education classrooms ?																			
Frequency of meetings																			
She came in 2xweek during reading for 30 minutes	1																		1
Weekly							1												1
2x per week and doing 10-15 minute sessions				1							1						1		3
Set time but would come in when she had more time and help											1								1
Therapist came in Tuesday afternoons for 45 min		1																	1
On the fly; open invitation; "kids aren't planned"	1	1	1	1		1					1			1					7
Does SM in gym in mornings				1															1
Plan ahead 15-20 minutes weekly; came in daily at first to calm chaos										1									1
Dropped in and observed techniques she taught being used in classrooms					1														1
Set time didn't work; had to be more flexible but OT makes sure to come in and do whatever students needed				1		1													2
Dedicated time in mornings												1							1
Came in while working with student on IEP weekly									1										1
Scheduled meetings for certain students but checks in and comes back if busy													1						1
Informal observations as I had questions, come and watch and help "kid watch"							1												1
Successful access to curricula																			0
Did SM with small group and para just 5 min before intervention but was effective and saw growth	1																		1
Students struggle more in class than pullout sessions so coming in helped her see where the needs were															1				1
Reduces stress for kids who have developmental needs limiting their academic success; improves focus and attention											1		1	1					3
Stronger posture has been really beneficial														1					1
Shared what worked with other classes to help with breaks, handwriting issues, fine motor											1								1
Finally able to get through class without major breakdowns												1							1
Students came up with their own version		1																	1
Knew the curricula		1																	1
Comfortable with educational model					1	1													2
Moving class and fighting a losing battle if I don't stop and move; yes it takes up some time but more focused													1						1
Developed leadership skills and helping skills as students helped each other						1	1												2
Given me more teaching time back												1							1
Had SM stations set-up in room for kids who needed to get back on track	1																		1
Doing SM 3x a day in classroom on own based on therapist training		1																	1
Helped with student's anxiety issues	1																		1
Exciting to see students use the strategies themselves; self-regulate	1	1				1						1							4
Helped students with behavioral issues, inattention, lack of focus, sitting still	1	1	1		1	1													5
Confirmed my reading techniques that helped students/explained why					1														1
Worked with Orton-Gillingham reading; good match							1												1

Collaboration between general education teachers and occupational therapists in classrooms: A layered analysis of professional practice in the USA

Teacher Litany 2

Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total
Saw value with struggling readers, a lot of progress, more focused						1												1
Mutually reinfocing, kids feel good when they're doing it, I feel good, and it reinforces it to do more and follow up with it										1								1
Like a mediator to help them get better at math						1												1
Showed connect to academic and saw a child with autism to go from hiding under chairs to doing math and reading; became more interested						1												1
Saw direct connection to things taught						1												1
Less behavior and more on fine motor, eye-hand coordination, core											1							1
Works with whole class and keeps an eye out for those having trouble															1			1
Helped low reader whose parents wouldn't allow sp ed testing				1														1
Focused better during transitions								1										1
Intergrating literacy skills with the body in small groups; huge key; engaged and on task; calling them focus centers										1								1
Others saw one child doing moves and all wanted to try them							1											1
Kids learned better after physical exercise									1									1
Helped with tracking issues of struggling readers									1									1
Readiness for focus for writing								1										1
Kids owned it and not more on my plate; kids became independent									1									1
Background																		0
Teacher had daughter with ADHD, son with OT						1				1								2
Started teaching in sp. Ed; has sped degree; masters in special ed						1		1	1									3
I've always been athletic and active; we dance and sing in class; notice kids who can't lift leg to tie shoes, etc.											1							1
Antibullying training/sped kids in class helps gen kids be more kind													1					1
Language/vocabulary																		0
Whole class spoke SM language	1	1	1	1	1	1	1			1				1			1	10
Used medical terminology and explained it/enjoyed learning				1														1
The teachers used terminology common to Ots lingo: midline, left-right brain, kinesthetic, body awareness, motor planning, core		1	1	1		1												4
Teaches why the moves work and benefits; keep brief or too much info						1			1									2
Use brain breaks instead of OT terms							1	1										2
Behavior needs to be defined; put into categories that teachers can see								1										1
Focus issues become behavior issues									1									1
It's behavior, term for any disruption in learning environment and break it down later but generally just call it behavior								1										1
Kids stressed with sensory input needed to regulate; uses terms because son is in OT and learned them there											1							1
How they react to something is behavior, don't think in terms of sensory													1					1
Could benefit from learning ot terminology								1										1
Descriptions of collaborative relationship																		0
She clarifies if I don't understand something; learning process; never worked with an ot before; different to see their perspective; fills me on so on same page														1				1
A lot of needs; a lot of help									1									1

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Teacher Litany 3

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total
Appreciates how busy the classroom is						1													1
She was the other teacher in the room and did well with large group because of teaching background											1								1
Very organized and told me what to watch for															1				1
I maintained behavioral control; know kids better could foresee issues				1	1				1										3
Calling all support staff by last name ensures they are respected by kids												1							1
Made copies of plans and sent to 3rd grade teacher for next year "collaborate vertically"	1																		1
Need to fix things quickly and on the fly works; can adress more formally later										1									1
No time for lesson plans but worked fine without them			1																1
Taught skills one at a time and didn't overwhelm					1														1
Worked with everyone not just specific students; fit into daily schedule without having to add a bunch of stuff				1	1	1													3
Known each other a long time; go to person							1												1
Activities made me smile; had a blast		1														1			2
Her excitement got the kids excited; she was good with kids					1										1	1			3
Therapist was down to earth and didn't act overly educated. She put children first. The students are what we have in common.					1														1
Asked therapist to help with kids having troubles with SM or in general	1								1										2
Easy to implement, no special equipment				1	1	1													3
Passionate for the children				1	1										1				3
Had to put my hands up and surrender and admit I don't know what to do with these kids													1						1
Holistic			1		1														2
Benefitted all kids not just the ones on her caseload; we can do it any time													1						1
Found the resources I needed, don't have time to put stuff together, she'll find it for me												1							1
Excited and didn't take no, kept checking back, willing to work with me					1														1
Pullout still but in classroom helping others too													1		1				2
Therapist respects teachers classroom management rules													1						1
Activities made me smile; had a blast		1																	1
The kids enjoy it and it's good for everyone							1												1
Came to me because I have respect from staff and power, can get people to buy in							1												1
Instant useability, educating; reflects and reports back														1					1
Teaches moves to kids; make it my thing with a little bit of training							1		1										2
Invested in classroom success; limited pull out; in class	1	1	1	1	1	1													6
Both managed classroom																	1		1
Calming as she leads students														1					1
I never felt insignificant in my role	1														1				2
Working smarter,win-win	1														1				2
Respected each other's wisdom and skill sets	1	1	1	1	1	1													6
Risk-free; no demeaning; respect; partnership, willing to work with everyone, open, flexible; listens; optiistic, positive	1	1	1	1		1						1	1	1	1		1	1	11
Kids like to learn why the moves help													1						1
Gave ideas and acknowledged my authentic concerns, validate my concerns							1											1	2
Like finding a friend, so much positive energy; felt energized and empowered							1												1

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Teacher Litany 4

Item																				Total
Flexible, open and safe relationship								1		1								1		3
Kids think she's magical, relate, love her presence in classroom								1	1											2
No behavior problems cause kids were so enthralled; in background if she needed help; free flow between us								1	1											2
I hope she never leaves me									1										1	2
OT is Awesome, very enthusiastic								1	1											2
Worked together and cotaught									1						1					2
Humble and be able to say not meeting their needs and need someone to help meet those needs										1										1
She wants to do the best for kids												1								1
I am open to new ideas; love collaborating; my personality; The more the Merrier									1	1	1									3
Drivers for collaboration/what made them want to do it?																				0
3rd grade guarantee, if not reading by then, student is retained					1															1
Seem to have the kids with SI needs and meshed with OT															1		1			2
ADHD, Dyslexia and so many thing can't put a name to					1															1
Low group of kinders and CC inappropriateness						1														1
Kids way behind, no assistant or partner						1														1
One child on IEP but worked with whole class		1						1							1				1	4
Hard to get an IEP so everyone did RTI SM for whole class										1										1
Wrote a grant together									1											1
All my kids could use it not just those on IEPS; first person to offer consistent support so I capitalized on it											1						1	1		3
Desperation												1								1
School has always been open and collaborative; small school, many hats														1						1
Chaotic group and difficult with transitions and working academically									1											1
Terms used to describe collaboration																				0
No formal model just jump in here and there									1					1			1	1		4
Consultation												1								1
Coteach w/ special day class teacher															1					1

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Teacher Systemic 1

Summary Sheet Teachers-Systemic																		
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
What in the system is enabling or limiting successful collaboration?																		
Administrative support																		
Teacher's excitement sways admin							1						1				1	1
Admin very supportive											1							
Last year's principal denied it and this year's supported it													1					
Flooding model where speech, OT, social worker come into classrooms 1xweek in addition to pullout time; didn't go over well due to time issues and was dropped the following year															1			
Sm is part of school culture; adults do activities too			1				1											1
Superintendent said CCSS will be messy; go out and explore options														1				
Admin willing to think outside the box											1					1		
Small school so not a lot of specialist; need to take care of it themselves; leads to more receptivity for collaboration	1																	
Principal is redesigning classrooms; slanted desks, gym balls, stability rings, and new chair												1						
Attended IEP for students	1			1		1												1
Administrator was "incredible" and very supportive	1					1												
Contract therapist was not an issue to district; students needs came first; finances not an issue	1																	
Prinicipal would see me doing SM but never talked about it but she was at staff meeting		1																
Inclusion is state mandate but not followed by others in building				1														
Admin chose who was participating with therapist and supportive					1													
Principal wrote grant for funding for materials					1													
Training kids all day due to no pull-out; kids knew therapist	1																	
Principal and VP referred me to OT for help with my rowdy class			1															
Admin came in and observed and saw how calm students were					1													
Wouldn't work if it was forced on teachers		1																
When admin hear us talking about benefits, they may buy into it							1											
Admin looking for something development for prek-3							1											
Used ICT, great experience														1				
Therapist is part of the school team					1													
Worked with EBIS (effective behavioral instructional support) or PBIS (Positive Behavior Support System) school wide and RTI together not separately, champs; it's complicated system	1		1								1	1						
Principal supportive and do PLC's every Wednesday to collaborate and look over data and share strategies to reteach content; everyone's input helps our students																	1	
Policy to call everyone by Ms/Mr./Mrs (referring to some Ots being called Ms. And by first name… not sure if significant or not														1				1
School is graded C but focuses on academics with dance, art focus; low income not a lot of parent involvement									1									
CCSS is working and needed to help direct what type of teaching we're doing														1			1	
Collaboration encourage district wide; provide training and time									1									
Supportive as long as academics are priority and using techniques to get them ready to write. Wouldn't let us go to the training.											1							
School into Kagan, cooperative learning, win-win discipline, class building, quick game											1							
RTI Tiers																		
Therapist is part of the school team																		

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Teacher Systemic 2

Statement	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Had training but don't know; would have to ask OT about it; may be Tier 1 but not sure; tried it for behavior not academics																		1		
Our school district does it but as gen ed not trained in it																1				
Short sighted to not have Ots train and saying it takes away from academics to use their tools													1							
Worked with RTI, whole class - Tier 3 and made it more effective								1												
Trial to see if it worked and should be added to RTI	1		1	1																
Could be part of intervention for behavior but not part of framework						1											1			1
Part of Tier 2 and 3, counted interventions; unsure if admin counted it; everyone wasn't doing it across the board							1													
Claim to do RTI but all based only on academics											1									
Trying to nail down RTI so not officially working within framework; in process														1						
Part of MTSS for individual students; good idea; all on same page, helping with collaboration and cooperation; everyone trying to head in the same direction at same time															1					
Have RTI team and submit for testing to be placed; first experience with OT; not consistent and unclear of process										1										
Limitations												1								
Admin needs to give therapists permission to go to teachers; new teachers don't know to look up their OT and ask questions													1	1						
Ot doesn't attend PLCs but would be helpful if she did																				
Gen ed not included in sped team meetings; wish we were to sit down and problem solve with them; lots of resources for sp ed team but not gen ed; would like more time to plan in formal setting than in passing																	1			
Principal picks PD and not what teachers want/need																		1		
ot strategies not part of behavior plan strategies; therapists plays clean up role instead of proactive																	1			
Subs cover for us for collaboration time but doesn't work well because we have to write so many lesson plans, even more work; once a month for 1/2 day																1				
New reading program takes precedence over SM workshop																	1			
Rules keep changing; one year need a sped student to go in and work with class, others years not, inconsistant policies; sometimes respectfully ignore the policies													1							
Killing myself writing out scripted extensive lesson plans														1						
Evaluated on student learning outcomes and not addressing needs of whole child														1						
PBIS is delayed gratification; need to modify behavior in real time using sensory methods, self regulation, modulation														1						1
Admin is unaware of collaboration; we did it outside of definition because we understood the developmental needs of kids; collaboration is usually just about academics													1	1						
Good stuff learned gets pushed aside for pressure of meeting benchmarks											1									
"So tired of the hoops"											1									
Weekly visits with standards posted and drill kids on them; when asked what they are learning on kids said, "I have no idea."											1									
Higher ups not bought into it yet											1									
testing; 3rd grade too focus										1										
Type in breaks in lesson plans but principal never comes in to watch to see how well it works																		1		
1/2 day kindergarten; hard to get everything in										1										
Common core dev inappropriate for kinders											1									
Constant pressure from people observing "rigor"; some kinders can't even hold a pencil; rolling on the rugs "when do we go home" because everything is so academic, one subject after another											1									1
Transition k - only a few kinders went through it											1									

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Teacher Systemic 3

Don't officially collaborate because "she is special ed" and I don't have diagnosed sp. Ed kids in class in Kindergarten; resistant to label because of funding								1									
Ot caseloads "insane"; lots of schools								1									
Sp ed not resources for gen ed teachers; different views; won't test kids; still using discrepancy model								1									1
Collaborated outside RTI as it was not clear; RTI all focused on academics and not dev skills; teachers very stressed								1									
Communication/Follow through help								1									
Therapist helps with paperwork and IEP meetings																	
Representatives from K-3 and modified for grade levels; had regular meetings to go over how lessons went with group of teachers involved			1		1												
Therapist typed up or copied lesson plans to follow when she wasn't there; brought in materials for me to try				1									1	1			
Team meetings at least 2x a week; alignment, common language, common core, new strategies	1									1							
Weekly team meetings called PLCs; students are in drama, music, or dance during their PLC planning time (40 minutes) plus an extra hour on their own time, not paid;more than once a week while kids go to art and music for one hour block								1									
The "wheel"; kids go to library, computers and rotate or late start days in the middle school for collaboration													1				
Dropped in and observed techniques she taught being used in classrooms							1	1					1	1			
Met in grade teams to discuss how things are going				1													
Informal emails/frequent informal communication/notes on desk/discussion after class/lunch	1												1	1	1		
On the go thing; come join us! Quick debriefing after lesson, email; hard to catch her on campus	1	1	1	1	1	1											
Access																	
Therapist was onsite so I could walk into her office and ask for help																	
quads and common areas for small group work		1					1										
never been to her office; she comes to me in morning at a dedicated time before we start											1						
close to each other so can talk before and after school; constantly running over and asking questions						1									1		
Programs used collaboratively																	
Utilized S'cool Moves	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
BAVX	1	1		1													
How Does Your Engine Run											1						
HWT, mat man				1													
Brain Gym							1										
Action Research Cycle																	
Debriefing and trying something different if it didn't work			1		1								1				
Not named but described, informal version of it											1						
Had some training but not very scientific with the approach; wouldn't use it to describe my work		1			1							1			1		
Knowledge of OT																	
Other OTts didn't explain things, didn't know what they did, never even meet them sometimes							1	1									
Others involved in collaboration																	
reading teacher at RTI and supported it											1						
PT helps teach moves			1		1												
PLCs, 7 team members						1											
Other support do pull out							1										
Special day teacher													1				
Speech teacher middleman to help connect with OT							1										
Ot supervisor was part of training and collaboration											1						
Workshops/Staff Training																	

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Teacher Systemic 4

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18
Whole building training on S'cool Moves; speak same language																		
Modeled weekly/biweekly/monthly at meetings not in classrooms	1		1			1							1					
Teachers came in on own time for meetings but worth it					1													
Did workshop for special day classes and kindergarten teachers														1				
Representatives from K-3 and modified for grade levels; had regular meetings to go over how lessons went with group of teachers involved				1														
Plan to make video to share with staff and get others involved				1														
Trained a student's one on one aide					1													
1/2 hour training to staff in SM	1																	
In mornings on our time to meet before our busy days, felt it very important; If teacher missed, met after school		1																
Trained volunteers in SM to do activities before and after reading with students							1											
SM is part of staff meeting with OT and PT providing strategies	1																	
Attends sm training and made her realize importance		1																
Would like her to come to PLC and introduce SM								1										
Teachers came on own time to workshop cause needed help for kids' ot did an awesome presentation and got admin on board										1								
Limit theory and more help with ABC			1				1			1					1			
They gave just enough info for us to get it and feel smart and use big word and then they let us do it				1						1							1	
Admin might buy in more, like superintendent if steeped in medical background and then connect it to classroom										1								
When delivering to a teacher don't bog down with the medical stuff, we have an educational background, we want the real life, day to day info that we need to be successful										1								
Very directed by admin as to what we can get trained in; could not go to training because not planned								1										
Admin and staff see that movement is incorportated into academics										1								
In class training first year and then more structured with lessons second year									1									
Training																		
Would like to learn more; research-based things that help the kids			1				1								1			
Her knowledge solidified what we were doing and why		1																
If we knew more about behavior and her medical knowledge like eye movement or core strength, we would grow as educators. More we know, the bettwe we could serve our students.														1				
Behavior training beyond PBIS/Champs												1						
More action research training				1	1													
Defining aspects of behavior														1				
Would like to see her more in action so I could integrate more															1			
PLCs never heard off but would like to learn more		1								1						1		
One course for exceptional students and briefly touched on RtI process. Would benefit from more training that is require when you become a teacher.								1										
Materials/activities								1										
Therapist loaned me materials																		
Would like a chart to track kids			1															
Shared helpful website						1		1						1				
Data Collection																		
Need to collect document progresmm from what we are already using																		
Don't have to make it formal; kids aren't planned											1		1	1				
Fun because didn't have to do assessing; not one more thing on plate						1												
Verbal and written accountabiity in place		1																
Using Daley chart	1																	
Using for e portfolio for 21st Century skills					1													
Meaningful outcomes, no specific data for classroom support					1													
OT came up with reading assessment tool but didn't have time to talk about it				1				1										
S'cool Moves intervention to increase academic scores as goals						1												
Recommended a screening tool and would be worth time to know what students need but haven't used it yet	1												1					
Checkmarks when succesful at goal														1				

Teacher Worldview 1

Summary Sheet Teachers-Worldview	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	Total
How have pairs' perceptions or assumptions changed due to their collaborative relationships?																			
I thought reading wasn't anything that an OT could help with but now I've learned so much about tracking and head movement		1																	1
Therapist who comes in once a month and didn't give anything to do in classroom was past experience					1														1
Her tools going into my tool bag; she takes the lead in areas she knows about; PROFESSIONAL DEVELOPMENT ON THE FLY!											1								1
What blew me away was thinking that we haven't been doing our students justice all these years and we could do so much better by them (behavior as sensory needs)														1					1
I would never have time to do fine motor activities and focus exercises with them because I'm a teacher with 25 kids. The OT gets them doing it in the whole class so no one is singled out; it's a short time but it's enough																1			1
Sometimes teachers expect the therapists to work miracles; they can only do what they can do											1								1
Didn't even think about behavior as being sensory, we don't think about it like that!													1						1
Perceptions of kids change from defiant to "oh, maybe they can't track"													1						1
she takes on the teacher role and I follow her lead; I view her as an instructor													1						1
I am a kinesthetic learner and had a hard time in school so I came to teaching assuming that other kids would have problems so I believe in differentiation not just in life but in education						1													1
My experiences have been in pull-out model so this is a new experience so I didn't appreciate Ots before because I didn't know what they did; now I appreciate what they know; medical model pullout not effective	1	1					1				1						1		5
working alone, can't reach all the children; working together helps me reach all the children													1						1
I can't be specialized in everything; now I have so many more tools and will never go back to teaching the way I did	1																		1
Medical and educational models are not separate entitites but are needed to work together for a holistic approach to a child's growth	1		1		1												1		4
I learned what the therapist did by watching her work in the hallway with kids so I had a good idea about what she did		1																	1
Whole team approach, not just for IEP fulfillment	1			1													1		3
When I say behavior, ots go to their little file cabinet in their midn and they use medical terms for behavior. They say they're not trainined behavior but they have those medical categories. Teachers aren't trained that way.						1													1
if you can organize and manage as a teacher, everything else falls into place											1								1
it was all a pullout world and I wondered what they did and if it helped in the classroom										1									1
By helping one student w/IEP, helped so many others in class; motivate those on IEPS	1			1															2
Goes by Ms. _____ cause students have a different relationship with her									1							1			2
Therapist sees things that I wouldn't see	1			1		1											1		4
Special ed has more background in collaboration and coteaching compared to reg ed										1									1
She became the teacher helping me	1			1															2
Teaching is getting harder; don't have to go it alone	1																		1
Didn't think an OT could by like her; I expected someone coming in and working with that one student and only that one. Willing to work with other students too										1									1
Learning quick, easy things that we can do for all kids is great, not just for kids in sped															1		1		2
Got so much more than pull out and want to keep it going each year					1														1

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Teacher Worldview 2

Statement																						Total
Kids work so hard to master standards and holding them to higher level of accountability that we can't get all the pieces into one we tend to forget those important pieces to help their academics because we want to help them learn and get through all the material. I think having outside perspective and helping us remember that we have to have them focus or else we're not going to have their attention to learn stuff... brain breaks.							1														1	
I think gen ed teachers are not always good about wanting other people in the room; they want to be the experts in the room															1					1		
By helping one student w/IEP, helped so many others in class			1																	1		
Input from others is richer, wealth of ideas, tweak to make my own, can't go back to isolation after collaboration						1													1	2		
See many students that need OT that I didn't realize before	1																		1	2		
if I could do things differently, behavior would be different; kids aren't ready, their forced and pushed when they don't even have control of his little body in space, let alone sit in a chiar for 30 minutes; pushing kids is like talking to a brick wall; Head Start and preschools want to keep them another year but we can't fund it														1					1			
I know what is good for kids but it's getting harder and harder to do the right thing because of academic push														1					1			
Forced to collaborate but made me see the value of it						1													1			
In the pullout model, never had constant contact, always on the outside edges of the classroom. It was a medical model. So this is a whole new experience for me, but for this group of kiddos is working great									1										1			
Thought my lessons weren't engaging enough and I wasn't reinforcing enough and mangaging behavior problems incorrectly; self doubt but then the OT made a big difference to shwo me what was really missing and how to improve their concentration										1									1			
Flooding model showed that we could do individualized things in a group rather than pull out													1				1		2			
Thought she'd be medical model and take kids with her toolbox to another room but instead stayed and shared with me in the classroom, so helpful										1									1			
Had ot not come in my classroom and seen the things she did, I would have struggled all year long and tested their reading when we already know they stink at reading already, it broke my heart but that's the system that's set up for them.I would go to meeting after meeting for intervention about PBIS or RTI Tiers and its such a prescribed, strict way to march through things relying very heavily on data that's only a snapshot of what a child's existence really is at home, school, and their whole being. For me, I've really struggled with the process, that this is the way to get a chld to move academically through our system. It's hard for me, we have forgotten that these are children, so complex and so much more to them.										1									1			
Calling therapist by first name because therapy is a fun time, they enjoy it even if it's hard for them; for older kids they use their last name; younger kids their first names; are they less valued so we use their first names? I don't know												1							1			
So thankful for her support and learning these things that are helping me be a better teacher for my kids										1									1			
First time working side by side and not having kids pulled out; it's so nice																1			1			
We are all teachers in the classroom whether OT or gen ed																1			1			
In another world you could teach developmental skills as they get in the way of academic and we aren't paying attention to these factors.								1											1			
Other therapists have come in but didn't want to be there; this OT is different									1								1		2			
Assumptions of policymakers																			0			
We can't fix everything, kids bring problems to school, their home life, sleeping, relationships, hunger										1									1			
They think we make excuses when we try to explain this situation						1													1			
Common core developmentally inappropriate for kinders							1										1		2			

Teacher Worldview 3

Statement																			Total
Top down model with forgetting about Piaget		1																1	
Like trying to potty train before ready						1												1	
What they're expecting these little kids to learn is unbelievable; forgeting to build foundations each year; expected to transform all this info at a young age, poor social skills, throwing so much info at them they have no idea							1									1	2		
They lose sight that you have to educate the whole child not just the academic; their whole self, the emotional, mental, physical, and academic.You're not going to do a job if you are miserable sitting for six hours without a break you wouldn't be able to function well at your job either.									1								1		
Feel like kids are in pressure cooker and we expect a lot, sometimes we expect more than their age level can handle								1									1		
That they can write a prescription, have enough documentation and things should be fixed; each kid can fit into a category, tier, or box, that it can be prescribed, they're medical model											1						1		

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Teacher Myth

Summary Sheet Teacher-Myth	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
How do the pairs describe their collaborative relationships using myth, imagery, or metaphor?																			
A collaborator because the whole focus of masters program				1															1
Medical model is held in higher esteem but the perception is changing due to some teachers getting their Ph.Ds and still teaching	1																		1
Our profession is trying desperately to change the perception of not being as valued as the medical model	1																		1
Everyone came up through education/schools so they think they are an expert in what we do	1				1											1		1	1
Misconceptions about our profession compared to globally but we educate every student and don't select the ones who will go on in school	1								1							1	1		1
We are not a nation of failing schools; we are a nation trying to adapt and modify to an every changing world	1																		1
Each model is more or less respected depending on the arena	1																		1
medical and edu models are complimentary														1			1		1
medical model is more rounded approach														1					1
Medical model valued more by parents of kids with special needs		1																	1
Medical model is still more highly respected. Formal assessing but still not black and white. Testing is more medical model, variables and "fixing" the issues									1										1
Medical model more revered from my observations					1	1										1		1	1
Doctor would be viewed are more intelligent that the teacher with doctorate		1	1	1													1		1
Misinformation makes people not respect teacher. We deal with hunger, poverty, abuse, behavioral issues; I can't do it all myself that is why collaboration with the therapists is so important to work through barriers that I can't control	1																		1
Educational model is more like soft sciences and the medical model is the quick fix; we go for the cause and it gets muddy and reduces credibility			1	1														1	1
Medical model makes collaboration more difficult because of the therapist's mindset and it's more valued for its expertise				1															1
should be equally valued							1												1
I can't get to the academics without the medical piece	1																		1
here's the medical piece and here's the educational piece, now let's connect the dots										1									1
Preservice teachers need to utilize these resources and fill their toolboxes; I never stop learning	1																		1
medical model valued more; educational system is a reflection of what's going on in society, all thepoverty, abuse and crime							1												1
Neither more valuable on same team; no separate categories, whateve works best for the chld is the end result								1											1
Kids are ready for all this academics, kinder teacher overhead a parent saying, "honey use the other end", referring to how to use a pencil.																	1		1
Medical doctor thought smarter; know more terminoogy than teachers; but teachers would be smarter if using ed terminology									1						1				1
The medical model thinks they're smart										1									1

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Teacher Metaphor

Metaphors Teachers
Kind of like potty training a child. If you train at home and the day care doesn't do their part while you're at work, they're never going to get potty trained. I watched often times what Toni did. I think of it as vitamins for me. I've learned as teacher how much better it makes me, OT in my classroom has been vitamins. I'm healthier and better when I take them than when I don't. I can't imagine, if Toni moves away or I get sent to a different district, not taking those vitamins with me. I know I'm a better teacher, a better meeting the needs of my students, I have a goal and future to go into more of a leader, administrative role and I know it is one thing I will bring to the table. My students have grown both independently and as a contributing citizen in a learning environment. Which prior I wasn't seeing that, was feeling pretty defeated.
All the different colored human beings holding hands, working together, it takes a village, group effort.
I think a salad. There's some ingredients that by themselves you wouldn't eat, but mixing them together with the right dressing it now becomes really good. I've actually, in my 10 years now, have always been on very successful collaborative teams. I've only worked in 2 schools, and both have had pretty successful teams for those higher level support needs. I've had friends who haven't had that and I can't imagine them trying to do this job without that.
It's like a hot fudge Sunday, everyone brings something that different that are all better when they are together. The longer they are together the better and more blended it is. The ice cream melts, the chocolate mixes, it's different, it changes the experience but it maintains all the great stuff about the individuals things but you have something more cohesive.
Chips and Salsa
The mustard seed, baptism by fire.
There's no one size fits all and we have to do what's going to help
Two heads are better than one! Usually things start to happen when you ring a group of people into your discussion. Different ideas and something magical happens, you can get to a solution a lot faster than if it's just you.
Like Christmas in April. You get something so fresh and new and everyone gets so excited about it whether its new matieral or curriculum from OT.
Everyone has a role, a piece of a puzzle, if one piece is left out you won't get the full picture. Two heads are better than one; if you put them togethr you'll get better results.
Building a building. You have to have your foundation, your knowledge then the skeleton, all the tools you need, then the doing part, the kids, at the end you put the roof on it and tap it down by being able to report on the success or failures, what you need to change it. Building - all the building blocks.
Like a dance, a ballet. We all have our parts but together it makes it more functional and more beautiful and the kids are getting a new sense of appreciation for their own strengths and skills as am I, as a teacher and a professional. These are things I never incorportedinto my teaching before but I'm being brave and on stage and a little bit afraid to try some of them but at the same time it's really fulfilling. Principal would be the house manager but he is so busy running to meetings from here to there that his plate is too full.
Working together to help meet the needs of the children in our classroom and school. Lookng at the whole picture of a child and sharing how I see this, you see this, what can we do to help meet their needs. Using each other as resources as a team to solve issues and problems and also build on what they do well so that we can get them higher in those areas and help compensate in areas they're lacking in. Collaboration involves allowing someone else become part of your classroom.
It's the little things we build on , little things we have them do with their bodies and brains, laying down that good foundation
She's my coffee cake to go with my perfect cup of coffee!

Therapist Definition of Collaboration

Summary Sheet Therapists-Definition of Collaboration
Collaboration is taking two different people's skills and knowledge bases and being able to combine what we both know and be able to work toegether for an outcome for both of us
I think it involves a group of people that are willing to share their areas of interest and expertise so we can improve our service, our understanding and support for one another and those who in the end we are trying to help
In a nutshell, it's a team effort and working together and supporting each other. I see myself as supporting teachers in their classrooms
Working together to support a student's need to be more successful, using both people's skills to provide input into whatever you're collaborating.
Two people working together to make a plan and follow through with it.
Two way street. It takes more than one person. With me in the schools, it's beneficial to the student to collaborate with whomever the team is. It could be face to face, emailing. I learn what she's looking for; I'm meeting her needs.
Collaboration is teamwork. Bring your expertise as well as theirs, working together to achieve the best balance to help the kids and meet their needs. Sometimes I have a good perspective of the senosry aspect, whereas she has the classroom skills of managing a large group and working together we get the best oucome for the kids.
It's definitely got to be a team.
Working with and sharing roles with another person in a different discipline narrows how to define our service on the IEP, either direct, collaboration with only regular ed teachers and consultations. Teamwork is a good descriptions for it.
Working together collaboratively for him to be successful in his environment; how can we modify, change, support it and embellish the environment to see benefits not just for him but for all students.
Share our expertise and come together in order to benefit children and their educational outcome
Working towards a goal or skill in conjunction with another teacher or therapist for the child to gain a skill. You're working on the strategies you're going to implement to get that goal achieved or skill built, you're working on that together.
Two professionals in their field that communicate regularly to focus on resolving needs. Almost co-teaching
Not pushing my own agenda but really working together as a team, figuring out what's important to the staff. Not just the teachers but to the aides, parents that are volunteering, what's important to them, what are they trying to accomplish and what can my specialty bring to the table to support them
You have a group of students and you're working together to meet the needs of the students, you have two different areas of expertise with the foundational, sensory, and motor skills and of course then academics. As on OT, I came from a medical background and had no academic, education background, or teaching so I think you take those people that are an expert in their area and work toward a common goal.

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Therapist Litany 1

Summary Sheet Therapist-Litany Layer	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total
How do teacher and therapist teams describe successful collaboration within general education classrooms ?																			
Frequency of meetings																			
Therapist in 2x a month with para and teacher observing	1																		1
S'cool Moves run 5 days a week before school started		1																	1
HWT was planned ahead with weekly scheduled 15 minute class meetings		1																	1
15-20 min presentations in class; 4-5 times				1															1
Once a month after lunch went into classroom					1														1
Set day and time; once a week													1		1	1			3
Classroom meetings not planned ahead of time	1			1	1														3
Scheduled 1/2 hour meetings in room							1				1								2
Went in when child was absent, observed, provided feedback after school informally										1									1
Using MM book and doing a lesson a week								1				1							2
One classroom, 10 weeks, once a week														1					1
One day a week for 30 minutes																	1		1
Successful access to curricula																			0
Teacher uses activities/solutions when I'm not there and makes it part of her routine	1	1	1	1	1	1	1			1		1	1	1		1	1	1	14
Teachers found it valuable because focus improved and kids were ready to work and access curricula; effective; sees benefit, for own self too; teacher gives validation of effectiveness	1	1	1	1	1	1	1	1	1	1		1	1	1		1	1	1	16
School Culture, see it being done all over campus and at all grade levels; assemblies							1	1	1	1									4
Teacher stays in class and learns; doesn't take a break	1	1	1	1	1	1	1		1					1					9
Students were leaders (21st century skills)					1														1
Co-taught lessons (handwriting, science) SM; split groups up; note, they don't use word "cotaught" just describe it		1					1		1				1	1					5
Different relationship w/ sp ed- co-teaching; w/gen ed I lead																	1		1
Teachers not involved in monthly meetings or class presentations did routines when they saw other classes being successful; it spread and others asked me to come in		1	1																2
Key to success: Teacher maintained classroom control	1		1	1	1														4
Teacher actively working to make sure I was respected and my skills valued	1			1		1													3
Often changed what was doing due to class needs	1													1					2
Name tags would have helped					1							1							2
Students don't know who I'm there for; everyone benefits										1									1
Teachers see kids attending but don't always understand that the reason is I've worked on proximal stability, crrossing the midline, reach over for crayon to color														1					1
Fit into their day, helps, fun, not extra work															1				1
Integrated into day; observe and add MM to their day; into lesson plans already set-up														1					1
Think this should help but no data; will follow in years to come from kinder on up																	1		1
Data Collection																			0
Too difficult to keep data in class (how many bean bags passed); no time to collect	1	1												1					3
Wrote progress report to teacher for kids on caseload only	1				1														2

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Therapist Litany 2

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total
S'cool Moves data was informal comments by teachers about improved attention, behavior, concentration due to 4-5 classes being too many to collect data formally; observed changes		1				1					1				1			4
Too many schools and too few days at school to collect data			1															1
HWT had workbooks so teacher could see progress and ask for help when needed		1																1
Used SPM and recommended S'cool Moves interventions for individual students but not allowed unless doing special ed testing; it is a standardized test				1														1
Actively listened during meetings to learn about assessments and curricula	1																	1
Teacher had "over the top" test scores according to the principal		1																1
Signed off as kids completed tasks and keep records							1											1
Timed them coming in from recess								1										1
Update writing samples when in classroom, every week or 2													1					1
Tracking data; who is having difficulty (note about not making posters an ot goal)																1		1
Pre/post screening for kinders														1				1
Descriptions of collaborative relationship																		0
Friendship/a lot in common/good personality/not burned out/young	1	1	1		1	1				1	1	1		1		1		10
Building on something in common (love of kids, autism, something that lights them up)	1	1																2
Teacher was respectful	1																	1
Teacher was amazing; wonderful	1	1	1	1						1					1			6
We share common goals	1	1																2
Open to learning from one another; take risks; comfortable if things don't work first time	1	1				1		1	1			1		1			1	8
We both care about needs of students	1																	1
I/teacher need to be a good listener	1								1									2
Building a relationship											1		1		1	1	1	5
I am supporting not convincing; fit their teaching style; not expect them to do everything suggested	1	1		1		1						1			1			6
Teacher is specific as to what her needs are		1				1			1									3
Sharing ideas back and forth, just chatting		1									1				1			3
Teacher is holistic			1															1
Teacher is a problem solver; receptive	1					1											1	3
Teacher has a lot of energy, loves what she does								1										1
There was a need and I was asked to help or chose that classroom								1								1	1	3
Seeks out help								1	1	1								3
Dedicated, hard working								1							1			2
Knows kids well								1										1
I'm persistant!, salesman, knock on doors										1								1
flexibility; no expectations for things to go one way										1		1	1	1		1		5
I am respectful of how stressed they are, they're demands												1						1
Honesty: don't agree to try something if you aren't going to follow through														1				1
Their kids are my kids too; equal input															1			1
Teacher wants us there and looks forward to us coming in																1		1
We're a team, team player																1		1
Drivers for collaboration/what made them want to do it?																		0
Supporting kids not on IEPs/behavior; what's best for kids								1							1			2

Therapist Litany 3

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total
Teacher with classroom needs asking for help																1		1
Seeing classrooms with disorganized kids							1											1
Social worker recommending training/ help for behavior kids						1												1
Wrote grant						1							1					2
They need to be in class and learn from peers								1										1
Beyond IEP goals,legality, and politics									1									1
Mother was a teacher, collaborated clinically too										1								1
Whole school is an inclusion school											1							1
Frustration, inner city school, children don't have preschool, don't have foundation skills													1					1
Self-initiated, not mandated													1					1
Sp. Ed director says collaboration is best practice														1				1
Terms used to describe collaboration																		0
Consult with teacher													1					1
Push in															1			1
Delivery system changing from plugin versus pullout																	1	1

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Therapist Systemic 1

Summary Sheet Therapists-Systems Layer	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total
What in the system is enabling or limiting successful collaboration?																			
Enhances Collaboration																			
Administrative support																			
Everyone on board from top down including superintendent; makes everything start to roll		1											1				1		3
Met 2x a month in the mornings before school with the principal and targeted 1-3 grade classes to go over strategies/S'cool Moves routines, discuss implementation, what is working, what wasn't			1																1
Supervisor supportive; sp. Ed backgound notably reason for it in cases													1	1		1		1	4
Use S'cool Moves a part of professional growth goals				1		1													2
Did an initial inservice with school, principal came					1	1	1												3
Principal extremely supportive and allowed time for collaboration either before school or at staff meetings (5 minute quick routine), 1/2 hour in class			1	1			1					1							4
Supportive principal "whatever teacher wants" but no presence in class to see what it is all about																1		1	2
Met 2x a month in the mornings before school with the principal and targeted 1-3 grade classes to go over strategies/S'cool Moves routines, discuss implementation, what is working, what wasn't			1																1
Able to collaborate because schedule allowed for it; had time					1		1												2
Administration support makes teachers get on board too			1	1	1														3
Others wanted me to come in but I didn't have the time					1														1
Principal extremely supportive and allowed time for collaboration either before school or at staff meetings (5 minute quick routine)			1	1										1					3
Administrator went into classrooms to ensure there was a benefit and support teachers' efforts; benefits seen past sp ed into gen ed			1								1								2
Provides technology for documentation and using activtities w/smart boards										1									1
Teachers prefer push in								1		1									2
Principal believes in full inclusion throughout school, no sp ed rooms													1						1
Admin should tell teachers, "invite the Ots into your classrooms"														1					1
Admin pushing collaboration																	1		1
Principal has us sit in on meetings and help with sensory diets																	1		1
Limits Collaboration																			0
No support from therapist supervisor but followed best practice even though it wasn't popular in district						1													1
Principal doesn't understand importance of foundation skills; wouldn't approve attendence to SM workshop															1				1
Midlevel support, not from top/down (sp ed supervisor, superintendent)									1										1
Forcing doesn't work; principal forced ther to be disciplinarian; teacher didn't ask for her to be in there								1											1
Teacher's paid for performance and accountable for every second											1								1
Principal patroling and making sure planbook matches activity											1								1
A-F grading of schools limits freedom for collaboration											1								1
Demands of DOE and therapists crazy schedules														1					1

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Therapist Systemic 2

Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total
Need validation; heart and soul to explain to higher ups but they don't get it; teachers brave to do Sm anyways																	1					1
Unclear of role; staff unclear; leadership not defining role, reservoir; when all else fails, call the OT																	1					1
Staff development days would help but don't have them anymore						1																1
Pay for performance not set up right and impacting collaboration success			1			1																2
Need more time, stress free to communicate and plan instead of rushing through		1	1		1																	3
Unable to be part of school culture/family due to being assigned to many schools		1																				1
Testing limits teachers trying out new things; scared to take time away			1																			1
Did inservice for staff or paras								1				1	1	1	1							5
Professional dev days encouraged; pd catalog of offerings											1										1	2
1/2 day prof dev (PLD) Professional Learning Development, wet whistle wanted more after 1/2 day																		1				1
Gave 5 minutes to present; presented to schoolboard and made them do activities; wrote grant																1						1
No time at staff meetings so went in and taught while in class																				1		1
Mini-inservices in classroom																					1	1
Access to therapists																						0
Access to teachers; school not out of town	1																					1
In same school, close to classrooms, before/after school access								1	1		1							1				4
In many schools																						0
Large kinder classroom																					1	1
Communication/Follow through help																						0
Teacher wanted something written so they knew what I did	1																					1
Contact by email or quick talk right after class or when happen to see each other in office; very unstructured but effective	1	1	1	1	1	1			1													7
"Just do it" but teachers need detailed instructions (sensory diet for instance) and need it more scripted	1		1																			2
Checked in with teacher to see how it was going; informal; not preset						1							1									2
Going on instincts as to what the class needed	1			1																		2
Needed to plan more strategically and remember what was done in class	1																					1
Need linear ABC format; need to strategize to make it work			1																			1
Made time in lunch room or whenever there were a few minutes						1		1			1					1	1					5
On the fly									1												1	2
Observation checklists provided for teachers; given to head of RtI; 16 areas ready to print as soon a teacher talks about concerns; check off boxes "what helps"											1		1				1					3
Get together 1-2x week without students to discuss working and not; change																1						1
Put it in schedule and do it every day																		1				1
Action plan and time line; one formal meeting to plan than lunch meetings																1	1					2
In the middle of sessions; after sessions; informal																			1			1
RTI Tiers																						0
Still pullout and a combination of coming in and pulling out				1									1									2
Only included in 3rd tier													1									1
Worked within RTI model Tier 2, small group intervention	1			1																		2
Worked with reading teacher RTI Tier 2				1																		1
Strategies used in small group and with whole class	1																					1

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Therapist Systemic 3

Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total
Kept data only for those on caseload	1					1													2
Working in big groups is so much different than smaller groups	1																		1
RTI falls apart when there is not time for continuous follow up		1	1	1															3
RTI is good avenue for collaboration; admin pushing it		1		1													1		3
RTI specifics not there for collaboration; not sure of details; evey school does it differently		1				1							1	1					4
RTI has increased time spent talking about intervention with teacher 15-20 min		1																	1
Therapist helps teacher with RTI that she's identified as needing help with but the problem is that they don't have time to do what we ask them to do		1																	1
Teacher may not buy-in to RTI strategies recommended		1																	1
Found enthusiastic teacher and went directly to her;not RTI directed					1	1			1										3
Lack of knowing teacher personally and connecting limits success with RTI		1																	1
Ask to "look at student" that may be referred for RTI and offer suggestions														1					1
Medi-cal only pays for direct service, not RTI intervention/prevention							1												1
New RTI form and OT not on it, write-in at bottom; not on RTI teams							1	1											2
Reg. ed initiative so not officially using but keeping track of strategies and impact							1												1
Still use discrepancy model so collaborates outside RTI framework								1											1
No RTI, teacher's write goals and ot supports, no stand alone goals										1									1
Staff went to RTI training, heard about it, but nonexistent still in school												1							1
Tiers are confusing, no time to implement, no more time for OT/PT/Speech/great ideas but need resources to make it work												1							1
Pull out "RTI kid" with IEP kid, though no official RTI policy												1							1
Developmental skills group within rti framework															1				1
RTI bldg but not standardized in schools; work on Tier 1 kids with IEPs; too many priorities like standardized testing; strategies not implemented with fidelity																1			1
RTI is gen ed directive but sped endorses; who pays for interventions?																	1		1
ICT program, Integrative collaborative teaching… co-taeching is for special ed and general ed… 1/2 sp. Ed, 1/2 gen ed in classroom with another teachers, note confusion with what things are called and what they are																		1	1
MTSS instead of RTI, expanded version of RTI, collaboration is tier 1; OTs not on tiers in written, formal terms																		1	1
Have intervention team meetins but no protocol or procedure yet																		1	1
Programs used collaboratively																			0
S'cool Moves jointly used; activities aligned to CCSS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	18
Yoga			1	1		1									1			1	5
Bal-A-Vis-X	1																		1
Handwriting Without Tears	1					1													2
Brain Gym											1								1
Book Collaborating for Student Succss, CD has forms																1			1
How does your engine run							1									1	1		3
Others involved in collaboration																			0
Paras helped teachers in groups when therapist wasn't there	1																		1
PT was part of the collaboration team and helped with presentations/activities			1														1		2
Reading specialist was involved				1															1
Speech therapist; using posters in speech too…shared activities						1		1								1			3
Social worker recommended training								1											1
School psychologist; help understanding no OT goal but common goals from standards								1			1								2

Therapist Systemic 4

Item																	Total
District wide meeting w/ special ed team, sppech, psych, behaviorists on PD days										1							1
Parents through newsletter send home parent letters from MM; send home materials, parents very involved at school, good communication w/teachers											1		1			1	3
Intervention specialist "whole school needs to do this"										1							1
Mentioned co-teaching in sped rooms but not collaborating with them											1						1
Sp. Ed teacher; sp. Ed director says collaboration is best practice											1		1	1			3
Implemented behavior teams ABA but not really collaboration, go in and monitor and observe, collect data													1				1
Behavior specialist, ABA, starting to understand about sensory needs of kids; sort out behavior vs sensory											1		1				2
Time																	0
Schedule "specials", PLCs, participated in PLCs, grade team meetings									1		1						2
Contract employee but met firm on phone only so can allot time as needed; flex w/scheduling and don't have to do direct service model to get paid									1		1						2
Teachers think we are too busy to ask for help								1									1
More time provided for school because of more sp. Ed on campus								1									1
So much could be done but so little time								1									1
Instead of writing OT goals, using gen ed curriculum goals allows more time for collaboration										1			1				2
No time to write lesson plans													1				1
Knowledge of OT																	0
Teacher has some background about what OT was for						1				1							2
Need to educate teacher as to what we do/lack of understanding - limitation							1	1	1								3
Educated admin/teachers with inservices							1		1								2
Teachers have been observed and critized by other Ots												1					1
Parents need to understand difference in medical model OT and educational model OT									1								1
Doctors prescribe clinical OT services and parents expect it instead of ed model												1					1
As teachers became more familiar with ot/pt, their positions became permanent on staff at charter school														1			1
Action Research Cycle																	0
Similar cycle but not mentioned as "action research"	1		1			1				1	1	1	1	1			8
Teacher's /therapists Background																	0
In sp. Ed, special ed teacher collaborates/harder for gen ed						1	1										2
In Zumba					1												1
Therapist has child with special needs, knows strategies for school														1			1
Language/vocabulary																	0
Limited medical but teacher understood common terms						1											1
Difficulty with teacher speak									1								1
I know teacher speak, they don't make it a point to know thera speak												1					1
Training																	0
No training in behavior intervention methods, want more training; therapists or teachers							1		1	1		1					4
Had sp ed mentor who showed value of carryover							1										1
AOTA courses/guidelines/best practice						1	1										2
Wish colleges made teachers take course in movement/sensory/ processing							1		1								2
Need to constantly be training/teaching in real time -the teachers							1		1								2
Teachers think when I modify environment/curricula, giving kids easy way out												1					1
Preschool teachers "they'll learn on their own, we don't teach that" meaning, foundation skills, pencil grip, etc.												1					1
materials/activities																	0
Loan out						1											1
Energy stations instead of time out stations							1										1
Brain breaks instead of sensory breaks; more accepted							1										1
No pot of gold for materials; need money to support									1				1				2
Never heard of PLC or action research when asked specifically but wanted to learn more										1			1	1	1		4

Collaboration between general education teachers and occupational therapists in classrooms: A layered analysis of professional practice in the USA

Therapist Worldview 1

Summary Sheet Therapists-Worldview	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total
How have pairs' perceptions or assumptions changed due to their collaborative relationships?																			
I'm the fun one; not the authoritive figure													1						1
Assumed I'd get faster results but it took longer than thought to get results	1																		1
I can't just tell teachers what to do; I have to go in the classroom and build repoire; a lot of time and effort on my part			1																1
I thought the typical kids would be able to follow directions better than sp. Ed kids but many had trouble					1														1
I'm not a teacher because I'm not good at classroom management				1															1
Thought scripted reading programs were bad but now realize it gets everyone on the same page; I never say the same thing twice	1																		1
Thought teachers would be more like me (right brained) but need to engage more left brain thinking	1																		1
My right brain thinking would be a disaster in the classroom	1																		1
Maintain control of a classroom is harder than I thought it would be	1																		1
More difficult that expected																			0
Increased respect for teacher because medical model doesn't fix quickly like I thought; teaching is not about if you do "x" amount of "y", these results will happen	1																		1
My attitude has changed a lot over the years to give teachers more credit now that I'm in the classroom and see all they have to do		1																	1
My appreciation for teachers has grown and we both appreciate each other job expectations and qualifications		1																	1
Instead of working in isolation, we seek out each other's perspectives on an issue		1																	1
I tended to stay at the "expert" level but our friendship has helped me to release that role			1																1
I work hard to downplay medical model "hegemony"; we need to learn from one another to accomplish anything; ask teachers how they think we should solve the problem; limit technical vocabulary	1	1	1																3
I have, over time, learned how areas of teaching and therapy are the same (preparing, planning, adjusting, and observing)		1																	1
Training conflicting with reality																			0
on their turf; if situation was turned I wouldn't want them coming into my hospital and telling me what to do, they feel they are the experts in their classrooms																			0
Schools were not like my hospital experience because not in one place but scattered everywhere and learned quickly that there was rarely a "good time" to discuss students needs		1													1				2
Pull-out was the norm when I started but best practices says collaboration is the way to go to address the whole child; pullout not effective		1				1						1	1			1			5
Other therapist do a medical model but don't get much done and spend too much time writing reports and narratives	1					1													2
Taught to use direct service model but it is less effective, with collaboration we help our IEP students and the whole class		1				1	1	1											4
I have learned that to be effective I need to combine academics with my therapy sessions and have learned good teaching techniques to use in my therapy sessions		1				1													2
Collaboration wasn't needed as much 30 years ago as it is now; new way of thinking			1																1

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Therapist Worldview 2

Statement	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
Medical model is designed more for one on one instead of big groups					1												1
Medical model taught me to get them in, write a couple sentences and get them out but it doesn't work that way. More time, constantly behind, and stressed out	1																1
Thought collaboration would be more difficult and it is but the outcomes are much better			1														1
High respect for teacher and their intelligence	1	1	1	1	1												5
Blended teaching; roles blend into each other				1				1									2
thought schools would be more linear, so many outliers and factors that are out of our control that can discombolbulate the linear fashion																1	1
Collaboration makes job fun					1												1
Connection makes job fun w/another person in the same building					1												1
Teacher usually was more positive about how it went than I was	1			1													2
I feel kids are stressed out and there is so much more we can do to help them but we don't					1												1
Behavior and sensory are different things to therapists (not to teachers); sensory can turn off teachers; teachers need more training in sensory; understand "why"							1		1	1		1		1			5
Therapist was an educator prior							1										1
Teachers need to be more valued							1										1
Working in own bubble isn't as efficient; get better results collaborating								1									1
Kids are disorganized and teacher is realizing she can't teach them that way								1									1
Society is disorganized so kids are too; anxiety high for everyone leads to behavior issues								1									1
Some Ots focus on one kids instead of seeing a whole classroom of kids needing help								1									1
Teacher realized that kids need foundation skills								1		1							2
Teachers & principals w/ sped background or child with sp. Needs are easier to collaborate with								1									1
Behavior is a mental health field, not qualified for that									1								1
Drawn to medical model, higher quality because doctors backing it and education wasn't backed by medical model; medical is clearer cut									1								1
No longer use medical model to "fix" but to enhance classroom									1								1
Assumed teachers would know more vocabulary; special needs vocab										1							1
Non-therapeutic people don't accept sensory as a real thing; need to self-regulate										1		1					2
We see things teachers don't; look deeper; we need to teach teachers to see this										1							1
OT ed model wasn't successful in pullout model											1						1
Never felt this energy before; retiring doesn't intrigue me; want to get this collaboration and training teachers and therapists in this											1						1
Have to work through their preconceived ideas about me												1					1
Teachers are starting to understand about sensory breaks												1					1
Use both our medical skills and functional ed skills													1	1			2
Understand more what's going on in the classroom, expectation of students, better insight, bring teaching skills back to our sessions													1				1
We aren't behavior specialists and only somewhat in sensory														1			1
A lot of cross over; recommend strategies that a social worker or counselor might recommend														1			1
Sometimes teachers think modifiying activities is giving kids an easy way out														1			1
Shocking the terms people know and don't know, I make a point to know teacher term but they don't know mine. If we all had common terms and mutual understanding of each other's syntax and grammar it would make collaboration much easier													1				1

Collaboration between general education teachers and occupational therapists in classrooms: A layered analysis of professional practice in the USA

Therapist Worldview 3

Statement	Total
Not there for therapy (pullout), there for education so 1/2 hour a week isn't going to do anything; pullout is easier and motor stuff	1
Think OTs using CCSS is bad idea, takes away from sensory needs; don't agree with becoming a consultant and going to lots of schools; feel teacher needs help in her classroom and can't implement by herself	1
We have special skills, a sensory eye and teachers don't	1
Coming up with strategies together helps each other understand roles/jobs/what we do (referenced pillars and blocks)	1
Overstep boundaries/hard to not notice medical issues even though they aren't educational issues; I feel like we are told to not use our medical knowledge but I can't help it when I see something	1
No assumptions; just knew it would be a differenct service delivery	2
Having program aligned with CCSS has tied into classroom support, CCSS is the magic word	1
Govt's/ policy makers	0
No easy fix; not all kids are from same raw materials	2
Not in the trenches	1
Looking at paper and not reality of practice	2
Believe anybody can teach	1
Talk about brain research but don't apply it to policies	1
Believe everyone is completely functional	2
More receptive if they have children with needs	1
Assumptions are off the mark for children today and homes	2
Expectations of kindergarteners is frustrating/unrealistic; lacking foundation skills	2
see knitting need analogy… we teachers and therapists know the foundation skills are important but not being able to communicate this effectively	1
Told that we aren't teachers; we're different than teachers and hence it's easier for the kids to relate to us. We have a different relationship (note NYC therapists paid less than teachers)	1
Sometimes teachers think modifiying activities is giving kids an easy way out	1
Teacher believes in what I do so I think it will go well	1
I think more like a teacher now instead of being just fun as an OT; thinking about what they're doing, where they're at in the school year, what I'm supporting and helping them achieve (not Ms. Jenn, vs. using last name)	1
It's been a process not using the medical model; became easier when I quit clinical practice and only did schools; put on my school-based hat	1
I've taken on the role of the behavior specialist, no PBIS or ABA at school	1
Traditional OTs, we've never been collaborators, just recently has been considered important	1
Times when still need to pullout, can't do it all in the classroom sometimes	1

Therapist Myth

How do the pairs describe their collaborative relationships using myth, imagery, or metaphor?	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total
Medical myth of "fixing" once a week and even once a week is rare to have that kind of time with a student instead learned to imbed into what teachers already do for faster change	1					1			1			1				1		1	6
Ots are known to be more flexible than teachers; need to go in classroom and help strategize how to make it work			1																1
Medical model more respected than educational model	1	1	1	1	1	1			1		1								8
Training on collaboration had mostly audience was sp. Ed teacher with only 25% general ed		1																	1
We get paid more than teachers and society puts their money where they see value so the medical model is held in higher esteem					1		1												2
Doctors will be held in less esteem over time than our parents. They would never question a doctor. Now we do. It's changing.				1															1
Depending on the setting, medical model or ed model may be held in higher esteem but I think OT/Pt are appreciated and teachers think we have something to offer them				1													1		2
More concrete results in the medical world than education world														1					1
A lot more control over extraneous factors in medical field														1					1
Doctors prescribe OT so they respect our profession																	1		1

Therapist Metaphor

Summary Sheet Metaphors-Therapists
I like stories and I think stories represent all sorts of cultural things that we all share in different ways. I love stories so I'm sure that any kind of story where two people work together for a common good or outcome would certainly be appropriate, so the first thing that comes to my head is Hansel and Gretel like you said. Where two kids have to work together to survive…Then I try to think of the stories I try to have kids tell when I'm doing a dominance profile…you know the ones that are hopefully individual …Coming to your house and need to be respectful...Collaboration is like lemonaid. To have really good tasting, sweet lemonaid, you have to mix the sugar well. Lemonade is never as good when it isn't mixed well-lemon juice can have it's tartness-sugar it's sweetness but they are best when combined together.
You know, we are supposed to pray to Lord, and those that have really created that strong connection to God, everything has worked out in their life, so if we look at Abraham and his friendship. The other key part with us in the business world, I think that has to be there somewhat for collaboration to work well. Then it becomes a deeper root for each party. Moses, Joseph who just had a couple dreams and was just taught right by his father, and look at what happened when he stayed true to the end cores. So there's no one particular story. Look at Paul and Silas in the New Testament and Peter and some other disciples, they collaborated in order to share the word and then they went to different churches to spend the word. Off the top of my head, put the partnership with God first and then disciples and apostles working together and going out.
Peanut butter and jelly as an example for collaboration, so much better together
What comes to my mind is good communication, a back and forth. I see two speech bubbles with smiles on them. Good understanding. Two minds that are connecting, and feeling good about that connection.
Sharks are swimming, pilot fish, follow and work together to get to food, pilot fish and shark changes, takes turns.
Two arrows going in different directions. A two way streeet; we both have information the other needs and together it serves the student well.
You're together to complete a task. Like oxen that are joined to get plowing done. You're both dep in the trenches working hard. If ones not pulling their share, it's going to be skewed and not going to work. You need to have the same agenda and be focused and equally share the work to make it effective.
Old way of doing things doesn't work anymore; like beating head against the wall; teacher on the same page with same energy now
Egos set aside; in it for the good of the kids, not self-pride; teaching is an art;think outside the box; don't throw baby out with bath water, not all ornothing in terms of servicing kids
Teamwork, like a football team. Everyone has different positions but all have the same goal to get the ball down the field. One think I know about the territorial thing, you have to give it up and not be a ball hog.
I'm the bad penny that keeps showing up; I wear it on my sleeve; there's therapeutic intervention and eucation intervention and the two being married together is really the best relationship. If you can establish that, every child benefits and they flourish. Once they see it and get it, they understand it more. Seeing is believing. Now that she has such interest in it, she's on board.
Not us against them, all on the same page, same purposes, all want to help Johnny acess his curricula and how are we going to achieve that goal?
Stretched so thin; put blinders on and not do my medical model as taught; can't fix
Like a roller coaster. We all get on it together, taking the ride together. We're all o the train working together with our hands up! Woo Hoo!
see what we do, we've had students see us and ask us when we're coming to the classroom. We feel and we know it's a good collaboration. Good frosting on the cupcake.
Teaching can be all over the map like a spider web and medical is a rope, linear understanding that A equals B;things you can tangibly change (medical), education is so abstract sometimes
Related it to going to the gym for 1/2 hour a week but the rest of the week I did and ate whatever I wanted, that would be silly of me to think I'd see any results (metaphor for pull out programs)
Targeting the same thing but from a different angle (goals aligning with standards)
It takes all kinds (referring to helping kids)
Look at kids with different lenses; they see acting up doing something, I see motor planning issues
I would think a garden, the different flowers and plants. Some of them have more protective response, little thorns. We're all so different but we make up a beautiful garden. The district and principal being the gardener, pulls the weeds and makes it easier to grow, gets some of those obstacles out of the way. You donating the posters makes it easier and people being excited is the sunshine helping us grow!
good.
If you have an apple and cut it in half and then put it back together, you get the whole thing

APPENDIX F

NEW YORK DOE RESEARCH APPROVAL

NYC

Department of Education

Dennis M. Walcott, Chancellor

Research and Policy Support Group

52 Chambers Street
Room 309
New York, NY 10007

1 212 374-7659 tel
1 212 374-5908 fax

September 18, 2013

Ms. Debra E Wilson
P.O. Box 614
Shasta, CA 96087

Dear Ms. Wilson:

I am happy to inform you that the New York City Department of Education Institutional Review Board (NYCDOE IRB) has approved your research proposal, "Collaboration Between General Education Teachers and Occupational Therapists: Successful Practices Within an Response-to-Intervention Framework." The NYCDOE IRB has assigned your study the file number of 533. Please make certain that all correspondence regarding this project references this number. The IRB has determined that the study poses minimal risk to participants. The approval is for a period of one year:

Approval Date: **September 18, 2013**
Expiration Date: **September 17, 2014**

Responsibilities of Principal Investigators: Please find below a list of responsibilities of Principal Investigators who have DOE IRB approval to conduct research in New York City public schools.

- Approval by this office does not guarantee access to any particular school, individual or data. You are responsible for making appropriate contacts and getting the required permissions and consents before initiating the study.
- When requesting permission to conduct research, submit a letter to the school principal summarizing your research design and methodology along with this IRB Approval letter. Each principal agreeing to participate must sign the enclosed Approval to Conduct Research in Schools/Districts form. *A completed and signed form for every school included in your research must be emailed to* IRB@schools.nyc.gov . Principals may also ask you to show them the receipt issued by the NYC Department of Education at the time of your fingerprinting.
- You are responsible for ensuring that all researchers on your team conducting research in NYC public schools are fingerprinted by the NYC Department of Education. Please note: This rule applies to all research in schools conducted with students and/or staff. See the attached fingerprinting materials. For additional information click here. Fingerprinting staff will ask you for your identification and social security number and for your DOE IRB approval letter. You must be fingerprinted during the school year in which the letter is issued. Researchers who join the study team after the inception of the research must also be fingerprinted. Please provide a list of their names and social security numbers to the NYC Department of Education Research and Policy Support Group for tracking their eligibility and security clearance. The cost of fingerprinting is $115. *A copy of the fingerprinting receipt must be emailed to* IRB@schools.nyc.gov .

- You are responsible for ensuring that the research is conducted in accordance with your research proposal as approved by the DOE IRB and for the actions of all co-investigators and research staff involved with the research.
- You are responsible for informing all participants (e.g., administrators, teachers, parents, and students) that their participation is strictly voluntary and that there are no consequences for non-participation or withdrawal at any time during the study.
- Researchers must: use the consent forms approved by the DOE IRB; provide all research subjects with copies of their signed forms; maintain signed forms in a secure place for a period of at least three years after study completion; and destroy the forms in accordance with the data disposal plan approved by the IRB.

Mandatory Reporting to the IRB: The principal investigator must report to the Research and Policy Support Group, within five business days, any serious problem, adverse effect, or outcome that occurs with frequency or degree of severity greater than that anticipated. In addition, the principal investigator must report any event or series of events that prompt the temporary or permanent suspension of a research project involving human subjects or any deviations from the approved protocol.

Amendments/Modifications: All amendments/modification of protocols involving human subjects must have prior IRB approval, except those involving the prevention of immediate harm to a subject, which must be reported within 24 hours to the NYC Department of Education IRB.
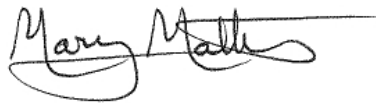
Continuation of your research: It is your responsibility to insure that an application for continuing review approval is submitted six weeks before the expiration date noted above. If you do not receive approval before the expiration date, all study activities must stop until you receive a new approval letter.

Research findings: We require a copy of the report of findings from the research. Interim reports may also be requested for multi-year studies. Your report should not include identification of the superintendency, district, any school, student, or staff member. Please send an electronic copy of the final report to: irb@schools.nyc.gov.

If you have any questions, please contact Dr. Mary Mattis at 212.374.3913.

Good luck with your research.

Sincerely,

Mary C. Mattis, PhD
Chair, Institutional Review Board

cc: Barbara Dworkowitz

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APPENDIX G

CLA GROUP DISCUSSION QUESTIONS

S'cool Moves Inc.

Group Discussion

This activity should take us 20 minutes to complete. Please spend four minutes on each question. Write and summarize comments from your group.

1. **What is observable about your collaboration situation?**

Describe the people you collaborate with... enthusiastic? positive? flexible? free to take risks? respectful of one another's skills sets?

Describe how you collaborate with general education teachers.

On the surface, our collaboration is _____.

2. **What supports or limits you in your collaboration efforts?**

Think in terms of administration, collaboration challenges, time constraints, money, etc. What is going well? What is limiting your efforts?

3. **What assumptions, perceptions, or personal views do you bring to your collaboration practices?**

Think medical model versus education model; think perceptions you bring to your work that aren't holding up to reality; think how you personally view the changes to special education services and how you view collaborating with general education teachers...

Expand to think about how others may view collaboration. For instance, general education teachers... what assumptions might they make?

Parents?

4. **What myth or metaphors would you use to describe collaboration in your schools?**

For instance, collaborating is "harder than putting a man on the moon" or "two heads are better than one" or....

What myths or metaphors might general education teachers make about special education students in their classrooms and collaborating with special education staff?
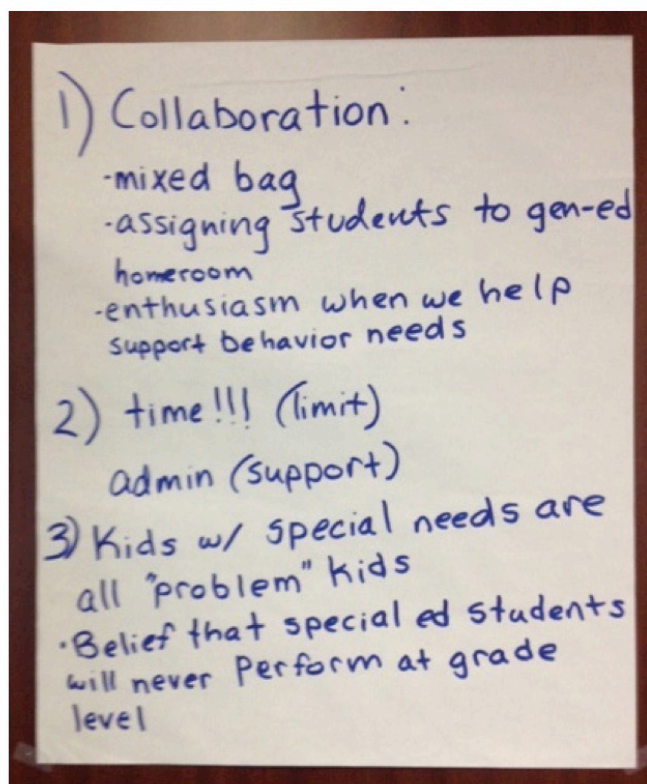
Parents?

5. **What are you hoping to get out of this workshop?**

PO Box 614 ▪ Shasta CA 96087 ▪ Ph: 530.245.1088 ▪ Fax: 530.245.0282 ▪ info@schoolmoves.com

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APPENDIX H

OPENING ACTIVITY IMAGES

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3. If we assume collaboration won't go well it probably won't.

•Parents- Lack of training or Knowledge.

4. Stuck between a rock and a hard place.

•Parents- may think we can "fix" their Kids.

5. Strategies, ideas- Practical tools

1. Specialist
    -open to new ideas,
    flexible, collaborative, respectful
    of strengths and needs
    Gen Ed.
     - guarded, push back,
    resistant, cautious,
    Collaboration
     - disjointed, inconsistent

2. Well... administrative support,
    training for Specialists (SPED)

    Limiting... lack training gen ed.
    added pressure of testing, report
    cards, time, money

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3. · gen ed anxious about inclusive
· what is the road map for ultimately
getting to inclusive practices throughout
school. successfully

4. · prerequisites (more academically) to be included
in general ed classes
· All program students have to have a lan/ to be included
Special ed is like a box of chocolates, you
never know what you are going to get

1. · other program teachers
· Classroom teacher (specials)
· Support specialist
· para educators (the staff)
· admin/principal

Our collaboration is
continuous

2. · time
· amount of me to go around
· teaching vs managing

1. It varies accross the district.
Depends on the program and
the school.

2. Depends on administration.
principal leadership

3. Coming from an educational model,
we might see things more
holistically.

4. "Some are open, some are closed."
"Some are pushy, some aren't seen."

5. Materials and techniques to use
across settings.

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