AN INDUCTIVE STUDY OF EXPERIENTIAL WORKPLACE LEARNING AND PEER COACHING: PARTICIPANT PERCEPTIONS OF EARLY CHILDHOOD INTERVENTION PROFESSIONAL INDUCTION

Dissertation
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A GROUNDED THEORY STUDY OF EXPERIENTIAL LEARNING AND PEER COACHING: PARTICIPANT PERCEPTIONS OF EARLY CHILDHOOD INTERVENTION PROFESSIONAL INDUCTION

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Abstract

AN IDUCTIVE STUDY OF EXPERIENTIAL LEARNING AND PEER COACHING: PARTICIPANT PERCEPTIONS OF EARLY CHILDHOOD INTERVENTION PROFESSIONAL INDUCTION

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This six-chapter dissertation is a grounded theory investigation of the perceptions and reflections of four novice practitioners as they traversed their orientation process at an early intervention agency in Western North Carolina. The dissertation identifies the need for a study that investigates the orientation process, referred to as "professional induction" as experienced by novice practitioners as well as the need for underutilized methods (collaborative and grounded theory methods). The research question, 'How do novice early intervention practitioners perceive and make use of their professional induction experiences to construct competence and confidence?' is addressed through two publication-ready papers (Chapters 4 and 5). The study culminates with the presentation and discussion of a proposed theoretical framework that illuminates the adult learning process experienced by four novice practitioner who engage in an experiential workplace learning induction process mediated by peer coaching.

This study presents a review of the relevant literature pertaining to early intervention induction and professional development as well a workplace learning. It highlights the gaps in methodologies used to investigate workplace professional development as well as the gaps in knowledge left by the privileging of quantitative studies to the exclusion of qualitative studies. Dominant studies are described and the privileging of what questions to the exclusion of how and why questions that have the potential to inform and refine theories of workplace learning are discussed. This dissertation presents the data in two publishable formats. An illustrative case study (Chapter 4) describes a process for experiential workplace learning (EWL) and discusses how it was applied to a small early childhood intervention program's professional induction process for four novice practitioners. The paper concludes that EWL was an efficient method for ensuring orientation to the use of evidence based early intervention pedagogical practice by novice practitioners. The second paper, an exploratory case study (Chapter 5) employs a collaborative approach to grounded theory methods to explore the experiences and perceptions of four novice early intervention practitioners who participated in an experiential learning process facilitated by peer coaches. Grounded theory methods were used to construct a framework for considering adult learning process within the context of experiential workplace learning mediated by peer coaching.

The study leverages underutilized analytical methods for arriving at theoretical concepts that informed the beginnings of a theoretical framework from which empirical studies can further elaborate. The small case of one early intervention program inducting four new practitioners provided a platform for illuminating the conditions that bred practitioner competence and confidence and contribute to the field of early intervention by (a) illustrating the need for diverse methodologies; (b) highlighting the unheard voices and experiences of

participants; (c) foregrounding professional induction as a critical field of study within early intervention professional development; and (d) proposing a framework for understanding how practitioner competence and confidence are developed during experiential workplace learning mediated by peer coaching.

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Dedication

For Brandon Li Sexton, my light, world, my heart.

For my co-researchers who made this work possible. My gratitude.

Table of Contents

Chapter 1: Introduction

In this chapter, I orient the reader to the subject of early childhood intervention professional induction and present the dissertation study. I begin by outlining a core concern with the field of early childhood intervention professional preparation and discuss my purpose of designing a study to investigate an early intervention induction process for novice practitioners. I discuss the significance of the proposed study to the field of early childhood intervention as well as the significance of the design and methodology to the research community at large. I clarify and define key terms that are used throughout the dissertation. Finally, I explain the organization of this proposal and propose a non-traditional organization for the dissertation.

Problem

Within the field of early childhood special education in America, states and programs are challenged by how to ensure practitioners who work with infants and toddlers and their families (i.e., special educators, speech-language pathologists, physical therapists, and occupational therapists) use evidence-based (i.e., research-based) early intervention practices. Since early childhood intervention (early childhood special education for infants and toddlers) is a small subset of what special educators and allied health professionals do, preservice programs spend little time preparing practitioners for how to implement their craft in the context of services to infants and toddlers (Bruder, 2016; Bruder & Dunst, 2005; Chang, Early, & Winton, 2005; Dunst, Hamby, Howse, Wilkie & Annas, 2019; Snyder, Hemmeter, & McLaughlin, 2011) which is significantly different from providing school-

based, clinic-based, and rehabilitative services to older children and adults (Hanson & Bruder, 2001; McCollum, 2000; Winton, McCollum, & Catlett, 1997). Pre-service college/university-based programs tend to focus instruction on discipline-specific knowledge and expertise needed to work across the lifespan and attend little to the pedagogy of providing services to infants and toddlers in their homes and community settings (Bruder, 2016; Bruder, Mogro-Wilson, Stayton, & Dietrich, 2009). Therefore, individual programs and state early intervention systems are largely responsible for providing the training and support needed to prepare their workforce to implement services within an evidence-based framework.

States have been challenged by providing the ongoing workforce development opportunities for promote practitioner adherence to evidence-based practices (Bruder 2016; Bruder & Dunst, 2005; Bruder et al., 2009). Bruder and colleagues (2009) note that more than half of the statewide early intervention or preschool special education systems in the United States report having a workforce that is inadequately trained to serve infants and toddlers with disabilities and describes the need for a systematic process as "blatant and urgent"(p. 14). The lack of systematic workforce development designed to orient and train practitioners on the use of evidence-based early intervention practices has resulted in a research-to-practice gap (Cook & Cook, 2013; Farley-Ripple, May, Karpyn, Tilley & McDonough, 2018; Vanderlinde & van Braak, 2013).

Even among early intervention practitioners with years of experience and continuing professional development behind them, the research-to-practice gap is wide (Campbell & Halbert, 2002; Elmore, 2016; Metz & Bartley, 2012; Vanderlinde & van Braak, 2013). Studies have found that practitioners generally rely on techniques unsupported by research

(Dunst & Trivette, 2009; Farley-Ripple, May, Karpyn, Tilley & McDonough, 2018; Russo-Campisi, 2017; Stahmer, Collings, & Palinkas, 2005). When evidence-based interventions are used they are often not implemented the way they were designed (Cook & Cook, 2013; Jones, 2009; Russo-Campisi, 2017; Stahmer, 2007). Mis-implementing evidence-based practices is so pervasive that a scientific area of study (implementation science) has been formulated around the study of understanding the process, procedures, and conditions that promote or constrain the transfer, adoption, and use of evidence-based practices (Fixsen, Naoom, Base, Friedman, & Wallace, 2005; Fixsen, Blase, Duda, Naoom, & Van Dyke, 2010).

Given the under preparedness of practitioners entering the early intervention field, it seems particularly important to understand how novice practitioners are being inducted into the field of early intervention in ways that lead to the efficient uptake and use of knowledge and practices unique to early intervention. This study is a grounded theory investigation of the perceptions and reflections of four novice practitioners as they traversed their orientation process at an early intervention agency in Western North Carolina. The study investigates how the practitioners perceive the experiential learning opportunities and make use of their assigned peer coaches to make meaning of their experiences and develop competence and confidence. The study culminates with the presentation of a theoretical framework that operationalizes experiential workplace learning within the context of early childhood intervention.

Purpose

In the current national climate of under-resourced programs and heightened accountability, the importance of efficient and effective professional induction is paramount

to optimizing a workforce. In the field of early intervention (home- and community-based special education for children birth to three-years-old) states and agencies languish in their attempts to ready the workforce for using evidence-based practices to positively impact long-term child and family outcomes (Bruder 2016; Bruder & Dunst, 2005; Bruder, Mogro-Wilson, Stayton, & Dietrich, 2009). The purpose of this study was to investigate an early intervention professional induction process from the perspective of the novice practitioner in order to illuminate how practitioners use their induction experiences to construct competence and confidence. An abundance of literature focuses on the outcomes of professional development experiences with respect to participants' increased knowledge, skills, and utilization of target practices (e.g.,, Childress, Raver, Michalek, & Wilson, 2013; Dunst, Trivette, & Hamby, 2010; Ingersoll & Strong, 2011). However, investigating *how* or *why* practitioners arrive at positions of competence and confidence is strikingly understudied. Knowing *how* practitioners make meaning from their experiences can help administrators develop and institute more effective professional development and induction experiences that support practitioner competency more efficiently.

Significance

Construction of Theoretical Concepts

Findings from the study impact and shape the way we understand adult learning within the context of early intervention workplace professional development. The aim of a grounded theory case study project was to use inductive processes to construct theoretical concepts that can inform the development of a new or revision of an existing theory or theoretical framework. Refining an existing framework or constructing new concepts that

inform how we consider and use an existing framework is a substantial contribution to a field plagued with a 20-year research to practice gap (Metz & Bartley, 2012).

Impact on the Field of Early Intervention Professional Development

The findings from this study not only contribute to the knowledge production in the field of early intervention professional development and induction, but also can result in real benefits to programs struggling with the most effective way to use valuable resources. States and programs use costly financial and personnel resources to provide the support and infrastructure to create and maintain a highly-qualified workforce. The findings from this study can illuminate the process and perceptions that guided novice practitioners' knowledge production and confidence during their professional induction process leading administrators to more efficient ways to support them. Refining professional induction practices in early intervention can conserve valuable human and financial resources and result in a skilled and confident workforce.

Mapping Underused Methodologies

The research design employed in this study also has the potential to impact how research is produced and what counts as knowledge within the field of early intervention professional development and perhaps beyond. This qualitative study uses grounded theory methods to analyze four cases of an occurring phenomenon (i.e., the induction process) and proposes to collaborate with the participants being studied during data analysis. When it comes to professional development and induction, the field of early intervention has been preoccupied with quantitatively measuring what practices impact practitioner knowledge, skill, and utilization of evidence-based practices (e.g., Childress, Raver, Michalek, & Wilson, 2013; Coogle, Larson, Ottley, Root, & Bougher-Muckian, 2019; Dunst, Trivette, & Hamby,

2010; Ingersoll & Strong, 2011; Siraj, Kingston, & Neilsen-Hewett, 2019). In addition to understanding what the induction process was that resulted in efficient uptake by the practitioners, the field can also benefit from knowing *how* practitioners are using their experiences to make meaning and *why* the induction process resulted in changes in their subject positions. *How* and *why* question must be addressed using qualitative and inductive research techniques—techniques that are underutilized, and perhaps underappreciated, in early intervention professional development research.

Unlike most other studies focused on early intervention practitioner professional development, this study focuses on the professional induction experience from the perspective of the participant, employing qualitative means to illuminate *how* and *why* the process was effective for these four practitioners. In the literature review chapter, I demonstrate the abundance of studies that focus on *what* professional development outcomes can be obtained through specific professional development experiences, and the need for studies that employ methodologies that can help us dig deeper into *how* and *why* the changes in practitioners occur. This study uses three underutilized methods in the field—grounded theory, qualitative case study, and participatory research—in tandem to construct new knowledge about how early intervention practitioners build knowledge and confidence. The utilization of these three analytical approaches demonstrates a rigorous and epistemologically sound way to explore knowledge production that can be applied to professional development studies in the future. Using a collaborative grounded theory case study design can provide a roadmap for others on how to inductively explore a phenomenon.

Research Questions

In my 17 years of serving within an early intervention program in Western North Carolina, I carried many roles, including early intervention practitioner, supervisor, program coordinator, and most recently professional development and dissemination coordinator. My experiences within the agency and broader field have provided me opportunities to observe (and experience) the struggle practitioners endure when operationalizing research into practice. I have served as a supportive colleague, mentor, and coach to hundreds of practitioners, not only within our agency, but across the country working to master their craft. Anecdotal and research data tell us the struggle is not only real, but that it can be mediated.

My most recent position as a professional development coordinator has afforded me the opportunity to redesign and implement an evidence-based orientation process for new practitioners coming to work in the field of early intervention. The orientation process developed by my colleagues and me was found, based on frequent field-based observations, to have accelerated the time it took for practitioners to reach implementation fidelity of evidence-based early intervention practices. Although a new design resulting in acceleration of implementation fidelity alone is interesting, I became more intrigued by *why*. As part of the orientation redesign, practitioners were prompted to keep journals of their orientation experiences so that we could later go back and understand the experiences that seemed most productive in contributing to their competence. In reviewing these journals and vicariously experiencing the uncertainty, confidence, and turbulence they endured during the orientation process, I became increasing curious about how their perceptions of their experiences contributed to their construction of knowledge and the role their experiences played in the

waxing and waning of their confidence and perceived capabilities. The rich information they provided in their journals and my curiosity to crack it open and attempt to understand similarities and differences in the personal journey each of them took to arrive at competence was the impetus for the research question that serves as the focus of this study.

For this study, my proposed research question is 'How do novice early intervention practitioners perceive and make use of their professional induction experiences in constructing competence and confidence?' I employed a collaborative grounded theory case study methodology to illuminate the experiences of four of early intervention practitioners in order to construct a theoretical framework that describes how novice practitioners perceived and constructed competence and confidence.

Definitions

Before proceeding, I offer some clarification of terms that are used throughout this proposal.

Early Intervention

Early Intervention refers to the system of specialized services and interventions provided to a child under the age of three who has been identified as having a disability or condition that places the child at risk for developmental delays (Shonkoff & Meisels, 2000). Early intervention services are provided in a variety of places, including the home, child care settings, or other inclusive community locations such as community parks, libraries, or other places families spend time and are designed to support the child's development in all domains, including cognition, physical, communication, social-emotional and adaptive development. Early intervention is authorized by Part C of the Individuals with Disabilities Education Act (IDEA, 2004) in recognition of an "urgent and substantial need" to (1)

enhance the development of infants and toddlers with disabilities; (2) reduce educational costs by minimizing the need for special education through early intervention; (3) minimize the likelihood of institutionalization and maximize independent living; (4) enhance the capacity of families to meet their child's needs (34 CFR §303).

Early Intervention Practitioners

Early intervention practitioners are those individuals charged with working directly with families in their homes or community settings to build the capacity of families to provide development enhancing opportunities and experiences for their children. Early intervention practitioners are pulled from multiple disciplines, and can include early childhood and special educators, speech-language pathologists, pediatric physical therapists, occupational therapists, developmental psychologists, nutritionists, and nurses.

Evidence-Based Early Intervention Practices

The term evidence-based early intervention practices is used to in this paper to refer to practices that have been scientifically investigated and are empirically related to positive outcomes for children with disabilities and their families (Dunst, Trivette, & Raab, 2013). In this paper the evidence-based early intervention practices participants are learning as part of their induction process include natural learning environment practices (Barton & Fettig, 2013; Dunst, Bruder, Trivette, Hamby &, 2006), family-centered care (Dunst, 2002; Madsen, 2016), a primary service provider approach to teaming (Shelden & Rush, 3013), and a coaching interaction style (Branson, 2015; Rush & Shelden, 2020).

Natural learning environment practices are experiences and opportunities afforded developing children as part of daily living, child and family routines, family rituals, and family and community celebrations and traditions (Dunst et al., 2006). Natural learning

environment practices are used by early intervention practitioners to support parents and family members in promoting child participation and learning during the course of everyday routines and contexts. Natural learning environment practices emphasize that for children, learning occurs when they are interested, engaged, and participating in activities that are typically happening in their family's day. Part C of the IDEA (2004) establishes that "to the maximum extent appropriate to the needs of the child, early intervention services must be provided in natural environments, including the home and community settings in which children without disabilities participate" (34 CFR §303.12(b)).

Family-centered care refer to a manner of working with families to enhance their capacity to care for and provide for their children's well-being. Family-centered practices include practitioner behaviors that (a) maintain a strong professional relationship, such as active listening and treating family members with dignity; and respect and practitioner behaviors that (b) empower families to retain a locus of control of decision making for their families such as teaching families the skills they need to access and make use of resources (Dunst, 2002; Dunst et al., 2014).

A primary service provider approach to teaming (Shelden & Rush, 2013) is an evolution of a transdisciplinary model of teaming where a diverse team of providers are responsible for a geographical area. One member of the team is selected as the primary service provider (PSP), receives support from other team members, and provides support to the parents and other care providers using a coaching interaction style. The team consists minimally of an early childhood educator or special educator, an occupational therapist, a physical therapist, and a speech-language pathologist, and service coordinator(s) responsible for all referrals within the predetermined geographical area. Using a PSP approach to

teaming promotes positive child and family outcomes through the development of a strong working relationship of the PSP and minimizes any negative consequences of using multiple practitioners using different approaches with varying degrees of consistency, and/or conflicting information (Shelden & Rush, 2013).

Coaching within the context of evidence-based early intervention practices refers to the interaction style a practitioner uses with a family to build the family's capacity to promote the child's development when the practitioner is not there. In our agency's orientation redesign, coaching included (a) developing joint plans with families for what they will accomplish between visits and what they want to focus on during the visits, (b) observing the parent practice skills and strategies needed to support the child's participation in a family activity or routine, (c) prompting the family to reflect on their actions in light of their intentions and make plans to refine their strategies, and (d) providing feedback to families to support continuous improvement (Rush & Shelden, 2020).

Pedagogy

Pedagogy has been defined as "…the instructional techniques and strategies that allow learning to take place. It refers to the interactive process between practitioner and learner… and includes aspects of the learning environment" (Siraj-Blatchfod, Sylva, Muttock, Gilden & Bell, 2002, p. 10). Pedagogy within the context of early intervention refers to the skills and practices a practitioner needs in order to facilitate the learning of both the child enrolled in early intervention as well as the family members and other caregivers (i.e., family-centered practices, natural learning environment practices, coaching interaction style, primary service provider teaming practices).

Professional Induction

Induction refers to the process of orienting and training new practitioners to become competent and confident in their use of the specialized practices required by an organization or field of practice. Across early childhood intervention and related professions (e.g.,, allied heal professionals, social work), induction is discussed using a variety of terms (e.g.,, orientation, professional development, induction) and provided using a variety of formats (e.g.,, mentoring/coaching, in-service, communities of practice). Within this dissertation I will use the term "professional induction" to refer to the activities and experiences designed to orient new employees to the workplace, aid with socialization and acculturation, and support the practitioner to reach fidelity to evidence-based practices specific to the field of early intervention. In the case of early intervention, practitioners must be trained in the use of specialized practices required to promote parents' and caregivers' capacities to support interest-based child learning during everyday family activities and routines. Since novice practitioners are not necessarily familiar with how to apply their skilled interventions in the context of a family's home or in ways that intentionally build the capacity of family members to use responsive interventions between visits, the professional induction process can take several months to a year to reach practitioner proficiency. Given the amount of organizational resources that are needed to support a lengthy induction process, it seems particularly important to study and understand the experiences of practitioners as they navigate and make use of the induction process in an effort to streamline it.

Professional Development

The term 'professional development' has a long and checkered past. Prior to No Child Left Behind Act of 2002 (NCLB), professional development could have been considered to

include any activity or experience provided for the purpose of increasing, knowledge, skill, or utilization of a desired practice. Increased scrutiny over the effectiveness of professional practices on achieving positive outcomes and with the enhanced understanding of implementation science over the past two decades, the term professional development has adopted specific characteristics that are positively associated with knowledge and utilization outcomes (Fixsen, Naoom, Blasé, Friedman, & Wallace, 2005). Specifically, national organizations (e.g.,, National Association for the Education of Young Children, Division of Early Childhood of the Council for Exceptional Children) and professionals have come to consensus that professional development should be (a) sustained over time, (b) grounded in practice (job-embedded), (c) linked to instructional goals, (d) collaborative, (e) interactive, and (f) provided in a way that allows for support and feedback in practice settings (Snyder et al. 2011).

Fidelity

Fidelity has been described in many ways (see Dane & Schneider, 1998; Dusenbury, Brannigan, Falco, & Hansen, 2003; Smith, Daunic, & Taylor, 2007). Fidelity includes two separate but related components implementation fidelity and intervention fidelity. Intervention fidelity refers to the degree to which evidence-based early intervention practices are used by interventionists to produce a specific outcome (Dunst et al., 2008). Implementation fidelity refers to the degree to which evidence-based professional development practices are implemented as intended to promote the adoption and use of evidence-based intervention practices (Trivette & Dunst, 2011). For this project, I use the term fidelity interchangeably with intervention fidelity to describe the degree to which practitioners implement a set of practices consistent with the manner in which the practices

were researched and intended to be implemented for the purpose of achieving a specific child or family outcome. In this case, a practitioner who is demonstrating fidelity to evidence-based practices is consistently demonstrating the research-based indicators as they were intended to be implemented and is achieving the same child and family outcomes correlated with the practices under research conditions.

Implementation Science

Implementation science is the study of factors that influence the full and effective use of innovations in practice (Fixsen, Naoom, Blasé, Friedman, & Wallace, 2005). According to Kelly and Perkins (2012), implementation science is concerned with understanding the process, procedures, and conditions that promote or constrain the transfer, adoption, and use of evidence-based practices in everyday contexts. It focuses on the adoption and use of evidence-based intervention practices and procedures used to promote practitioners' utilization of the intervention practices (Eccles & Mittman, 2006). In other words, implementation science largely concerns itself with better understanding adult learning of research-based practices. The induction procedures used as part of the redesigned professional induction model (i.e., coaching and experiential learning) to orient novice practitioners capitalized on implementation science. When supported to use evidence-based practices using evidence-based means, the four novice practitioners were able to replicate the practices with fidelity and achieve the intended child and family outcomes. The proposed study is a contribution to the field of implementation science in that it proposes to add to the knowledge base of *how* the practitioners came to make use of the support and experiences to develop the competence and confidence to adopt consistent utilization of practices.

Knowledge

In this project, I align myself with the constructivist epistemological tradition that knowledge is constructed and is therefore subjective (Denzin & Lincoln, 2011). This project addresses and describes two types of knowledge, (1) the process of "coming to know" about and use evidence-based early intervention practices in which the participants engaged, and (2) the process of generating new knowledge through the collaborative analysis of participants' experiences. In both cases, knowledge is seen as constructed and relative to the "knower's" experiences, personal characteristics, and the context in which the knower in claiming to know (Lincoln, Lynham, & Guba, 2011; Yin, 2014). Within a constructivist framework, knowledge is assumed to be incomplete and evolving.

Structure of the Dissertation

As a researcher and a practitioner, I am interested in the practical application of my research projects. Although the dissertation process is an important milestone in the process of becoming a scholar, I also saw it as an opportunity to hone the skill of producing scholarly work for practitioners and administrators in the field of early childhood intervention/special education. The dissertation process afforded me the opportunity to think deeply and critically about what I wanted to learn from my academic process and rally the support and scaffolding needed to end my doctoral journey with my own priorities having been met.

I engaged in lengthy discussions with members of my cohort (who were also interested in making the dissertation process more than an academic exercise) and numerous faculty members, including my advisor and committee chairperson. I considered my own academic priorities and my next steps as practitioner researcher interested in making my mark as a writer. As an early intervention program administrator with an interest in writing

for peer-reviewed and professional journals, I decided that this dissertation process was not only an opportunity to demonstrate my cumulative knowledge and skill as a scholar in early intervention, adult learning, and professional development but (and perhaps more importantly) was an opportunity for me to get support with professional writing for a non-academic audience. With support from my committee, I decided to depart from the traditional five-chapter dissertation in order to accommodate my academic and professional writing goals.

This collaborative grounded theory case study dissertation is divided into six parts: (1) introduction, (2) literature review, (3) methodology, (4) a publication-ready illustrative case study of an experiential workplace learning professional induction process (5) a publication-ready grounded theory analysis focusing on theoretical concepts emerging from a collaborative analysis of the data (6) a summary of the study and overall implications of the methods and findings with a discussion of implications for future use in future research projects. Each section is described in more detail below.

Overview of Chapter One: Introduction

The introduction orients the reader to the study by introducing the problem the study hopes to address and describing the purpose and the potential impact the study and the methodology to field of early intervention. The introduction also defines and clarifies terms that are used in the dissertation study. Finally, the introduction presents the organization of the dissertation to aid the reader in navigating the key features of the study.

Overview of Chapter Two: Literature Review

The literature review presents research methodologies and methods dominant in the early intervention induction literature, the early intervention professional development

literature, and the professional development literature in the related fields of education, healthcare, and the allied health professions. In the spirit of the grounded theory tradition (Strauss & Corbin, 1994), the literature review purposefully avoids an in-depth presentation of the theoretical frameworks dominant in the field of early intervention professional development and induction so as not to obstruct or direct new ideas and concepts as they are constructed during data collection and analysis. The literature presents a discussion of the contributions and limitations of the privileging of "what" questions throughout the professional development literature to the exclusion of "how" and "why" questions. Lastly, the literature review discusses the gaps in the early intervention induction literature and recommends methodologies and methods for expanding our collective knowledge about how early intervention practitioners use their induction experiences to make meaning and construct subject positions of competence and confidence.

Overview of Chapter Three: Methodology

The methodology section presents a rationale for employing a grounded theory case study design to investigate early intervention professional induction. I explain the key principles, assumptions, and analytical tasks employed by grounded theory case study and evaluate how methodological variations to a grounded theory tradition—a small case study approach, and participant collaboration with data analysis—can further inform the study of professional development induction experiences. I describe and analyze how grounded theory and participant collaboration during data analysis of case studies can potentially contribute toward the construction of and/or enhancement of theories of adult learning in the workplace within the context of early intervention. I describe the context and participants included in the study and describe how I will attend to the project's validity. Finally, I

describe the implications for using a collaborative grounded theory case study approach to investigating early intervention induction.

Overview of Chapter Four: Descriptive Analysis Paper

Although the first three chapters of the dissertation follow a traditional dissertation outline, Chapters 4 and 5 are presented as publication-ready papers that present the study and different aspects of the findings. One paper (Chapter 4) focuses on a description of the professional induction process employed, the lessons learned, and the implications for the field. It highlights the need for qualitative inductive methodologies to contribute to the knowledge base and provides a roadmap for conducting a collaborative grounded theory case study. The paper also recommends future applications for the methodology.

The intended audience for Chapter 4 is practitioners and administrators responsible for designing and implementing orientation and professional development experiences for early intervention practitioners. I wrote it with *Infants and Young Children* in mind as the target journal. *Infants & Young Children* is an interdisciplinary journal focusing on practices that support young children with disabilities or at risk for disability and focuses on professional training, new conceptual model and empirical studies. The introduction of a new model for conceptualizing professional induction for practitioners working with young children with disabilities seemed perfectly suited for this journal.

Overview of Chapter 5: Inductive Analysis

The inductive analysis capitalizes on the illustrative case study in Chapter 4 and applies grounded theory methods to provide a micro analysis of the practitioners' perceptions of the experiential workplace learning process. The paper focuses on presenting the findings of the grounded theory methods and participant collaboration to arrive at an emerging

theoretical framework for considering adult learning within the context of early intervention professional induction. As collaborators in the analysis and subsequent theorizing processes, the participants are included as authors on this manuscript. The individual and collective contributions of each of the participants met the four-part criteria endorsed by the International Committee of Medical Journal Editors (ICMJE). According to the ICMJE, authorship should be conferred upon those who provide substantial contributions to the conception or design of the work or the acquisition, analysis or interpretation of the data, draft or revise the work for intellectual content, provide final approval of the published version, and accountability for the integrity of the work. Each of the participants played a key role in producing, analyzing, and interpreting the data, participated in the revision of the theoretical framework presented, provided approval of the final draft, and agreed to be accountable for the integrity of the intellectual content of the manuscript. In a study that focused on raising the under-represented voices of professional development participants, providing the opportunity for collaboration at the level that constitutes co-authorship, seemed an ethical and necessary step in allowing for their stories to not only be told, but to be authored, critically analyzed and collectively produced as a framework.

This collaborative, inductive analysis describes the analytical process in which I engaged with the participants, presents the themes that emerged, and discusses their relationship with existing theories of workplace and adult learning as they related to early intervention and early childhood education. This paper illuminates patterns and trends across cases to produce generalizable knowledge in the form of a proposed theoretical framework about how practitioners perceived job-embedded experiential learning and peer coaching.

This paper was written with the *Journal of Early Intervention* in mind. The *Journal of Early Intervention* focuses on articles related to research and practice in early intervention for infants and young children with special needs and solicits articles that present conceptual and theoretical frameworks for research-based practices. The chapter 5 manuscript is perfectly positioned to be of interest to administrators and scholars of early intervention professional development practices.

Overview of Chapter 6: Conclusion

Finally, I reflect on the process of engaging in this participatory grounded theory research project. I summarize the inquiry process in which I engaged, highlight the significance of the process and the findings, discuss the limitations, and propose implications for the future of this line of research.

Summary of Chapter

This chapter of the dissertation provided the reader with background information about a serious problem impeding the field of early intervention and discussed the purpose and significance of the proposed study for knowledge production. I clarified terms key to the study and presented the scope and limitations of the proposed study. In the next chapter, I review the literature that pertains to early intervention professional induction as well as the related literature focusing on professional development within the early childhood and allied health communities and discuss the contributions and constraints that the body of literature presents. I present an analysis of existing gaps in knowledge and methodologies and in Chapter 3 I propose a research design that addresses multiple identified gaps. I discuss how a collaborative grounded theory case study provides the ideal design to interrogate *how* and

why practitioners construct competence and confidence during the course of an experiential professional induction process.

Chapter 2: Literature Review

Although most research studies are preceded by a comprehensive literature review, when embarking on a grounded theory study there is much debate about when to conduct the literature review. Some see conducting a literature review prior to data collection and analysis as a constraining exercise rather than a guiding one (Charmaz, 2008; Glaser & Strauss, 1967). The thinking is to remain open to new and emerging theories one must avoid contamination from existing theories. Others point out that exposure to other theories is unavoidable and underestimates researchers' abilities to engage in reflexivity (Charmaz, Thornberg, & Keane, 2018; Dunne, 2011). El Hussein, Kennedy, and Oliver, (2017) recommend taking a multi-stage non-linear approach in order to minimize preconceptions while maintaining the original intent of grounded theory methodology.

In consideration of this approach, I have postponed a comprehensive review of the literature and discussion of the dominating theoretical frameworks in the field for when I discuss and theorize with my own data (Chapter 5). Alternatively, in this Chapter, I focus on discussing historical and contemporary research questions and methodologies that dominate the field of early intervention professional development with particular attention to induction activities. I discuss how the limitations in the breadth of research methodologies and methods commonly used in the field constrain multiple theoretical understandings of how and why novice early intervention practitioners experience adult learning in the workplace and use their experiences to ultimately define their subject positions as confident and competent practitioners.

Literature Search Approach

I began the systematic review of the literature by searching a variety of databases related to education, including, Education Source, Eric, Academic Search Complete, JSTOR, and PsychINFO. Since early intervention spans a diversity of disciplines akin to education, such as health care, and social work, I expanded my search to include databases that serve the related fields of social work, health, and allied health professions, including ProQuest, Social Services Abstracts, WorldCat, PubMed, and Cochrane Library. Both controlled vocabulary and natural language searchers were conducted (Lucas & Cutspec, 2007). The terms used to identify studies included: professional development, orientation, induction, experiential learning, workplace learning, implementation science, early intervention, coaching, workplace learning, on-the-job learning, and early childhood special education. I conducted separate searches for existing qualitative, post-qualitative, and grounded theory studies using each of the identified search terms to ensure I was locating studies that were likely to include an analysis of participant experiences rather than outcome-only studies. After reviewing the relevant publications that emerged from those searches, I systematically reviewed the references of the relevant articles paying particular attention to meta-analyses and literature reviews. I searched for those articles and reviewed their references until I reached a point of saturation, finding only publications already identified. I also searched Google Scholar for the identified meta-studies, foundational books, and scholarly articles to determine recent citings of those works, resulting in additional recent studies relevant to my topic.

Organization of the Literature Review

This literature review is organized into three main sections. First, I review the research methodologies and methods dominant in the early intervention induction literature,

the early intervention professional development literature, and the professional development literature in the related fields of education, healthcare, and the allied health professions. Next, I discuss the privileging of *what* questions throughout the professional development literature to the exclusion of *how* and *why* questions. Lastly, I discuss the gaps in the early intervention induction literature and recommend methodologies and methods for expanding our collective knowledge about how early intervention practitioners use their induction experiences to make meaning and construct subject positions of competence and confidence.

A Review of Methodologies and Methods Dominating Professional Development Literature Across Early Intervention and Related Fields

In the following section, I review three areas of professional development literature (a) early intervention induction, (b) early intervention professional development, and (c) professional development within related fields, including early childhood education, health, and allied health professions. As I present the literature, I discuss how the dominating qualitative methods have contributed to the field's collective knowledge by efficiently identifying what works in professional development and limited our knowledge by excluding the voices, perceptions, and nuanced journeys of the participants who made meaning from those experiences. I will address how the privileging of positivistic methods has generated a narrow band of understanding that can be expanded by the inclusion of diverse methodologies.

Induction Literature

Early intervention/early childhood special education literature is in agreement that no systematic process or consensus for how to prepare early intervention practitioners exists (Barton, Fuller, & Schnitz, 2016; Bruder & Dunst, 2005). Furthermore, a paucity of literature

exists to document the programs, processes, and outcomes of orientation/induction systems for preparing early intervention practitioners to implement evidence-based practices. Although several studies exist that investigate preservice college/university-based training (Bruder & Dunst; 2005; Bruder, Dunst, Wilson & Stayton, 2013; Macy, Squires, & Barton, 2009; Smith, 2010) and an abundance of studies exist that investigate professional development within early intervention (see Bruder, 2016; Bruder et al., 2009; Campbell & Sawyer, 2009; Childress et al., 2013; Dunst, 2015), I located only one study that addressed the early intervention induction process. Induction is distinguishable from professional development by the comprehensiveness of new content typically covered in a short period of time while the individual is simultaneously being acculturated into a new organization or role. Whereas professional development is typically contained around changing practitioners' attitudes, knowledge, skill, or utilization of a specific practice or set of practices, induction is a larger scale endeavor that occurs over an extended period of time for the purpose of orienting the new employee to the workplace, as well as to the multiple sets of practices and process used within the work setting. Induction studies can be useful because they illuminate the nuances of the process of onboarding practitioners who are immersed in the workplace culture and learning opportunities

The only induction study I located focused on one aspect of the induction process: practitioner attitude toward one set of evidence-based early intervention practices. Xie, Chen, Chen, Squires, Li, and Li (2017) conducted a study to address the shortage of well-trained early intervention personnel in China. The researchers used a self-efficacy survey and a needs assessment to show that Chinese trainees perceived the family-centered approach to early intervention as relevant and valuable. Furthermore, they determined a need for

improving supervision and coaching as part of personnel training practices during the orientation phase of ongoing professional development. Xie's survey study used quantitative means by which to gather information about participants' perceptions. Surveys necessarily limit the information gathered to a construct determined by the researchers and ignore the vast amounts and types of information that participants are positioned to provide about their perceptions, experiences, and knowledge. The absence of methodologically rigorous qualitative studies in the field of early intervention professional induction highlights the void in our collective knowledge about how practitioners become acculturated to and make meaning from evidence-based professional development and induction activities.

The narrow focus of Xie's and colleagues' (2017) study and the lonely space it occupies also underscores the absence and need for more studies that illuminate how to best approach the professional induction of early intervention practitioners. Unfortunately, the existing studies pertaining to early intervention have ignored induction activities designed to provide early intervention providers with an orientation to evidence-based practices to ensure families are receiving services based on research. Early intervention professional induction potentially ensures that practitioners can implement early intervention practices with fidelity and increases the likelihood that families will experience positive capacity-building outcomes. Providing a systematic induction process front-loads professional development during the first months of hire. The absence of literature to describe or study the professional induction process, suggests that as a field, early intervention researchers have not sufficiently attended to the importance or impact of induction on practitioner or service quality.

Professional Development Literature

Expanding the review to look beyond induction experiences into to early intervention professional development studies provided scant few examples of studies that value practitioner perceptions on how they use professional learning experiences to make meaning and build competence and confidence. Extending my review into the professional development literature produced by related fields such as education, health, and allied health professionals, resulted in little more. Since early interventionists are multidisciplinary (i.e., special education teachers, speech-language pathologists, physical therapist is, occupational therapists, nurses) derived from a variety of fields of study, looking to how these fields study professional development seems useful and relevant. My review suggests that professional development studies within early intervention and related fields are instructional in correlating professional development methods with training outcomes, but fall short of providing a well-rounded understanding of how and why practitioners develop competence and confidence. The bulk of the studies are largely confined by four limitations: (a) studies use methodologies that highlight quantitative data and suppress the rich qualitative data professional development experiences potentially bring; (b) studies largely focus on producing data to support existing theories of adult learning; (c) studies primarily focus on the effectiveness of specific professional development models in increasing practitioner knowledge and skill; and (d) studies systematically leave out the voices of participants and consequently fail to make sense of the complexities of the experience as endured by participants. Below, I will expand upon the collective limitations of the leading literature in the field and review the dominant studies confined by each of the limitations and discuss their contributions and restrictions to the field of early intervention.

Limitation 1: Knowledge production is limited by the exclusion of diverse methodologies. Relatively few studies focus specifically on the professional development experiences for the subset of early childhood special education practitioners referred to as early interventionists. The studies that do are largely quantitative, focusing primarily on the state of professional development in the field (Bruder & Dunst, 2005; Landry, Swank, Anthony, & Assel, 2011; Dunst et al., 2013), the impact of professional development on practitioner knowledge or attitudes and behaviors (Childress et al., 2013; Dunst & Raab, 2010; Dunst & Trivette, 2012; Friedman, Woods, & Salisbury, 2012); or the relationship between practitioner characteristics and professional development outcomes (Dunst & Bruder, 2014; Odom, 2009). The studies tend to only cursively attend to practitioners' perceptions. For example, Carl Dunst and Melinda Raab (2010) conducted a quantitative study that examined the relationship between teacher discipline, type of teaching degree, and feelings of preparedness and the self-efficacy beliefs of early intervention and preschool teachers. Dunst and Raab studied the effects of three types of professional development training (conference presentation, full-day to three-day workshops, or intensive training provided in the participants' classroom) on practitioners' self-evaluation of evidence-based preschool classroom practices. In both studies, practitioners' perceptions of the experience were measured through a survey using Likert-type scale and analyzed using quantitative techniques. When practitioners' perceptions are filtered through a Likert scale, the findings are organized according to constructs predetermined by the researcher. Quantitative surveys do not allow for variations in participants' perceptions to be expressed outside of the predetermined constructs. This limits the type and scope of feedback provided by participants and obscures researchers' and administrators' ability to illuminate and gain knowledge from

the breadth of their perceptions that went unexpressed. Studies like this one serve to provide information about developed professional practices and procedures but cannot illuminate the bounty of untapped ideas that lie beneath perceptions and experiences of professional development participants.

Some early intervention studies focused on practitioner perspectives as a primary function of the study, but still limit knowledge production to quantitative means and continue to limit practitioner perceptions to those that fit within the filters predetermined by the theoretical framework of the study. Two examples of studies bound by these limitations include Childress et al. (2013) and Fleming, Sawyer, and Campbell (2011). Childress et al. (2013) conducted a study to determine the effectiveness of a professional development training designed to impact knowledge and skill development using a pretest-posttest design. They also collected qualitative data on participant's perceptions of the training. Data were collected through a written survey but were limited to participants' perceptions about the *helpfulness* of the training. Although knowing whether or not participants find a training helpful is informative, it falls short of helping us understanding *why* and in what ways (*how*), which would help researchers and administrators continue to design effective professional development processes. It also does not help us illuminate how the practitioner used the experiences to construct meaning and develop confidence as a practitioner. Again, participant insights and perceptions about *how* the learning occurred was neglected and as a result our understanding of how practitioners' use professional development experiences to build confidence and confidence is thwarted.

Several research syntheses exist that claim to outline, describe, or map the current state of knowledge about professional development systems and practices within early

childhood education research (Artman-Meeker, Fettig, Barton, Penney, & Zeng, 2015; Borko, 2004; Fixen et al., 2005; Fukkink & Lont, 2007; Ingersoll, & Strong, 2011; Manuti, Pastore, Scardingo, Gianscaspro, & Morciano, 2015; McClusky, Illeris, & Jarvis, 2007; Meyers, Durlak, & Wandersman, 2012). The majority of the studies included in these reviews are limited to quantitative studies and or studies that are intended to demonstrate that specific types of professional development are correlated to learning outcomes. Due to the foci and framing of the syntheses, they are largely aimed at presenting studies that have adopted a positivist stance on the subject matter. These studies simply address *what* the effects are of a particular professional development intervention. Although knowing what effects are associated with a particular professional development intervention is helpful, it does not tell us *why* some professionals who engage in those experiences are impacted and some are not, and it does not tell us *how* professionals perceive and make sense of those experiences. Professional development experiences launch the practitioner on a journey intended to influence, knowledge, attitudes, beliefs, skills, and utilization of a set of practices. It would behoove us to understand the journey from the perspectives of practitioners so we can better match professional development characteristics to the needs and tendencies of practitioners and produce practitioners who utilize evidence-based practices with fidelity more efficiently.

One heavily cited literature synthesis within in the education research illustrates the limitation of focusing on only quantitative studies. Ingersoll and Strong (2011) conducted a review of the research on induction programs for beginning teachers. Their initial search located 500 documents, but they filtered out all that were not empirical studies reporting data on beginning teacher induction and mentoring programs. They further reduced the list to

exclude studies that were descriptive rather than evaluative, effectively excluding studies that focused on the lived experiences of the participants. The 15 empirical studies remaining provide support for the claim that assistance provided to beginning teachers has a positive impact on (a) teacher commitment and retention, (b) teacher classroom instructional practices, and (c) student outcomes. All of the studies reviewed were correlational to one of the three outcomes above. None of the induction studies included by Ingersoll and Strong (2011) examined experiences of the practitioner through the induction process. Again, the studies reviewed tell us *what* teachers seemingly got from the experience but fail to address *how* or *why*. We do not know how they made sense of the experiences and how they used the experiences to construct their subjectivities. Syntheses like this one highlight the field's limited understanding of how practitioners use induction experiences to occupy positions of confidence, and competence alongside evolving attitudes and beliefs. In-depth studies that investigate what is happening from the perspective of the practitioner may help us to theorize frameworks that allow us to understand and use practitioner perspectives to streamline how we conduct professional induction experiences.

Fleming et al. (2011) conducted a study that broke free some of the identified constraints of previous quantitative designs but remained constrained by lack of qualitative depth the design provided. The study described early intervention providers' perspectives about implementing participation-based intervention practices, after engaging in a professional development activity. Participation-based practices—also referred to a routines-based intervention practices (McWilliam, Casey, & Sims 2009) and natural learning environment practices (Dunst, Hamby, Trivette, Raab, & Bruder, 2000; Shelden & Rush, 2001)—are those that focus on teaching caregivers how to embed learning strategies within

the family's naturally occurring activities and routines so that families can be confident and competent to promote child learning and participation during times when the practitioner is not present. Semi-structured interviews were conducted with the early intervention providers, allowing for much richer data set than simple Likert-scale surveys. The study set out to understand *why* professional development experiences enabled some providers, but not all, to change their practice. The study found that all participants, even those who implemented participation-based practices to some degree, demonstrated an incomplete understanding of participation-based services and their role in building the capacity of the parent to promote the participation and development of the child. The study did not provide analysis of *how* participants journeyed through the professional development experience or *how* they made sense of the information arriving at the reported conclusion. Also, researchers' use of apriori codes during analysis, and a predetermined theoretical framework (attribution theory), did not allow for multiple conceptual frameworks to be considered or allow space for a new framework for understanding practitioner learning to emerge that might illuminate why practitioner never reached full understanding and implementation. This study by prominent researchers in the field stretched the field's collective thinking about what constitutes knowledge about professional learning but was still limited by the use of an existing theoretical framework through which the participant data were filtered.

Collectively, these largely quantitative studies are helpful in terms of identifying discrete, high-efficacy professional development strategies that are likely to result in positive outcomes for teachers (e.g.,, increased knowledge, skills, and utilization), however, there is a need in the field for studies to move beyond identifying successful strategies and engage in studies that have explanatory power. We need studies that can help broaden or deepen

existing theories about how and why adults learn in particular workplace contexts. We need opportunities to develop learning theories that are grounded in the experiential learning data of the participants in order to understand why strategies work or are likely to work so that we can continue to refine and develop professional development practices that are efficient and effective. Learning theories grounded in the experiences of participants can serve to unearth additional influences of practitioner attitudes, competence and confidence, which can provide additional foundation for empirical studies and well as give rise to professional development methods that are likely to be effective and efficient. Exploratory qualitative studies can expand the field of study and create space for new and different theories of adult learning to emerge and illuminate the field of professional development, potentially narrowing the research to practice gap experienced in early childhood education and early intervention.

Limitation 2: Studies are limited to existing theories of adult learning. Studies, such as those described above, that focus on early intervention professional development provide us with insight that can be useful to early intervention induction, but like all studies, the picture is incomplete. Early intervention professional development studies largely focus on aspects of professional development that influence practitioner, attitude, knowledge, skill, or utilization using quantitative means. The quantitative studies admittedly help us to use scientific means to structure professional learning opportunities that have a high likelihood of practitioner outcomes; conducting studies that only focus on the efficacy of a specific professional development opportunity or strategy can also be limiting. Exploratory studies and inductive, qualitative studies are needed to develop theoretical ideas and concepts that help inform how we refine and continue to develop professional learning opportunities that are likely to result in positive knowledge, skill, and utilization. This kind of research could provide the field with critical information about a range of possible influences of practitioner competence and confidence that can help create more efficient and effective professional development and induction models.

Limitation 3: Focus on the effectiveness/outcomes of specific models of professional development. Expanding my search beyond the studies awarded status in a published literature review did not result in a larger range of methodologies. Many of the professional development studies deal with the efficacy of specific models of professional development, such as the TAPS model (Tell, Ask, Problem and Solution) (Deardorff, Glasenapp, Schalock, & Udell, 2007) used with paraeducators (unlicensed educators). The TAPs model is a professional development program designed for paraeducators who work with children with disabilities in early childhood and early childhood special education

settings. The model is designed to meet the needs of paraeducators who may or may not have advanced educational backgrounds by providing curriculum units that align with objective and competencies that can be individualized. In another model, Dunst and Trivette (2009) developed and studied an approach for providing professional development referred to as Participatory Adult Learning Strategy (PALS). The PALS approach places major emphasis on both active learner involvement and instructor –guided learner experiences and was found to be associated with improved learner knowledge, use, and mastery of different types of intervention practices.

While studies such as the ones noted above investigate the efficacy of a professional development model, others focus on comparing and contrasting the effectiveness of different adult learning strategies. For example, Dust, Trivette, and Hamby (2010) engaged in a meta-analysis to measure the effectiveness of four adult learning methods, including (a) accelerated learning, (b) coaching, (c) guided design, and (d) just-in-time training. Six operationally defined adult learning method characteristics (new material is connected to the learner's existing knowledge, illustrate or model the new practices, learner practice, self-assessment, reflection, and self-evaluation to a standard) were used to code and analyze the relationship between the characteristics and the learner knowledge, skills, attitude, and self-efficacy beliefs. Results showed that all six adult learning method characteristics were associated with positive learner outcomes, but that professional development experiences are most effective when more characteristics were used. Within the analysis, there was no mention of how participants'' perceptions of those adult learning strategies compared or contributed to the ongoing use of the interventions being taught. This information might help us illuminate and mediate the research-to-practice gap appreciated within the early

intervention field (Campbel & Halbert, 2002; Elmore, 2016; Metz & Bartley, 2012; Vanderlinde & van Braak, 2013).

Again, these types of studies help identify specific training practices or programs that are effective under a specific set of circumstances, but they do not contribute to our working theory about *why* or *how* adults construct knowledge or perceive those experiences. We do not know *how* they make sense of the interactions in order to occupy the position of a confident, competent practitioner. We need theory-generating studies in order to make sense of the complexity of meaningful experiences that impact the journey engaged in by practitioners.

Limitation 4: Absence of participant voices. Existing literature syntheses and studies that gather data about participant perceptions still provide little information to help us understand the extent to which researchers are investigating practitioner perceptions beyond surveys. Literature syntheses I located focused exclusively on empirical studies that addressed research questions with observable outcomes. In other words, the studies focused on investigating the quantitatively measurable outcomes (e.g., knowledge, skills, utilization), For example, Malone, Straka, and Logan (2000) synthesized studies about effective in-service training opportunities within early intervention. Malone and his colleagues were able to identify nine strategies essential to effective in-service professional development all from synthesizing the finding of quantitative studies.

Syntheses (e.g.,, Malone, Strala, & Logan, 2000) that focus on the *what* without balancing the report with studies that show *how* practitioners made sense of their own professional development process provide a very simplified version of an extremely complex system. Multiple choice surveys and positivist studies explore participant outcomes in

relation to an existing evidence-based construct. Using existing theoretical frameworks to develop and investigate the efficacy of specific professional development strategies and interventions is useful. However, there is much we do not yet know about how those experiences are perceived by and made use of by participants. Expanding our base of knowledge about *how* and *why* interventions work and do not work can help us revise and refine our workplace learning models and provide a framework for more efficient and effective professional development interventions.

Even studies that systematically collected and reported on qualitative data have failed to fill the void of participant perceptions. Mitescu (2014) conducted a mixed-methods study focused on "capturing the dynamic between *what* and *how* beginning teachers learn when transitioning from the university campus to the workplace" (p. 596). The quantitative data included a survey and the qualitative data included semi-structured interviews. The analysis highlighted a comparative perspective over what brings together and what differentiates approaches and understandings of learning and professional identity among practitioners from three countries. The mixed method analysis provided some insight into the experiences of the practitioners that allowed the quantitative findings to be put in context. What it does not do is help us understand *how* the experiences of the participants inform or reveal a conceptual framework that can be generalized across the field.

The discussion above presented an analysis of the literature in two areas of professional development literature (1) early intervention induction, (2) professional development within early intervention and the related fields, including early childhood education, health, and allied health professions. I discussed how dominating quantitative methods have contributed to the field's collective knowledge by efficiently identifying what

works in professional development but has also limited our knowledge by excluding the voices, perceptions, and nuanced journeys of the participants who make meaning from those experiences. In the section below, I expand on my analysis of the literature by interrogating the narrow use of research questions to guide inquiry for the advancement of the field.

Research Methods & Methodologies: What Questions are Privileged?

Across the previous literature review of methods and methodologies, a common pattern was a focus on practitioner implementation and outcomes framed by research questions concerned with answering *what* questions (see Table 1 for research questions from studies highlighted in this literature review). In this section, I further interrogate the use of *what* questions to define existing research studies and discuss the need to broaden our base of inquiry to include *why* and *how* questions that are likely to deepen and broaden our collective inquiry efforts.

As illustrated in the previous section, induction and professional development studies within early intervention and across related disciplines are dominated by quantitative methodologies. Given the importance of and need for professional development practices that successfully prepare, maintain, and advance the early intervention workforce, much of the existing research about early intervention professional development has been quantitative in nature. Identifying strategies that lead to increased practitioner knowledge and practice is a particularly important step on the journey toward uniform fidelity, and the quantitative research has certainly provided much needed information about which adult learning strategies are most likely to result in practitioners who can consistently implement evidence-based early intervention practices with positive outcomes for children and families.

The focus on questions that confine themselves to addressing *what* to the systematic exclusion of *why* and *how* questions has limited our body of knowledge about *how* practitioners perceive work-based professional learning opportunities and *how* they make meaning and develop confidence from those experiences. Addressing *how* and *why* questions is a necessary step in expanding what we understand about the adult learning process professionals experience at work and can subsequently impact how agencies/organizations choose to support professional practitioners within models of professional development and professional induction. A cursory look at the research questions from early intervention professional development studies shows the privileging of *what* inquiries and the limitations of what these questions address.

Table 1.

Research Questions and Focus of Early Intervention Professional Development Studies Addressing "What" Questions

Research Questions	*What* is Under Study?	Research Study Citation
• '*What* are the effects of a multicomponent professional development intervention on teachers' use of the Pyramid Model during classroom activities?'	Effects	(Fox, Hemmeter, Snyder, Binder, & Clark, 2011)
• '*What* are the effects of contrasting methods of professional development?'	Effects	(Dunst & Raab, 2010)
• 'To *what extent* does preservice teacher preparation relate to self-efficacy beliefs?'	Extent (Level; Degree)	(Dunst & Bruder, 2014)
• '*What* impact does training have on skill development of early intervention service coordinators?	Impact	(Childress, Raver, Michalek, & Wilson, 2013)
• '*What* impact does professional development have on provider	Impact	(Campbell & Sawyer, 2009)

practices with families and children?'		
• 'To *what* extent is practitioner adoption and use of participation-based practices related to providers' beliefs and perceptions?'	Extent (Level; Degree)	(Campbell & Sawyer, 2009)
• *'What* preservice and inservice variables best explain variation in practitioner competence and confidence beliefs?'	Variables	(Bruder, Dunst, Wilson, & Stayton, 2013)
• '*What* are parental perceptions about early childhood intervention practices demonstrated by their service providers?'	Variables [Perceptions]	(Bruder & Dunst, 2015)
• '*What* competencies and skills are needed for successful early intervention?'	Variables (Competencies & Skills)	(Pretis, 2006)
• '*What* impact does targeted professional development have on writing high quality outcomes for children and families?'	Impact	(Ridgley, Snyder, McWilliam, & Davis, 2011)
• '*What* is the perceived relative effectiveness of various training methods in promoting actual practices changes of service providers?'	Perception of Effects	(Sexton, Snyder, Wolfe, Lobman, Stricklin, & Akers, 1996)
• '*What* are the key features of early childhood professional development?'	Variables [Key Factors]	(Snyder, Hemmeter, Artman-Meeker, Kinder, Pasia, & McLaughlin, 2012)
• 'In *what* ways does HBEIP affect the readiness of Chinese participants in delivering home-based EI services?'	Ways/Affect	(Xie, Chen, Chen, Squires, Li, & Li, 2017)
• *'What* kind of supports and resources are helpful to participants in the program?'	Variables [Supports & Resources]	
	Variables [Supports & Resources]	

- *'Which* supports and resources are needed for improvement in HBEIP?'

Moving beyond the early intervention literature and taking a multidisciplinary perspective does little to expand this focus on *what*-based research questions. Studies about professional development in social work, the medical field including nursing, and the allied health professions reveal a strong privilege toward quantitative analysis. Knowing *what works* (Powell, Diamond, Burchinal, & Koehler, 2010; Rangel, Chung, Harris, Carpenter, Chiaburu, & Moore, 2015; Ruble, McGrew, Toland, Dalrymple, & Jung, 2013), *what's happening* (Meyer, van Schalkwyk, & Prakaschandra, 2016; Onchwari & Keengwe, 2008), and *to what degree* an intervention needs to happen in order for it to work (Piasta, Justice, Cabell, Wiggins, Turnbull, & Curenton, 2012; Rudd, Lambert, Satterwhite, 2009) has mattered a great deal to researchers to the exclusion of *why* and *how* professional development interventions work. Noticeably absent are constructivist or interpretivist methodologies that focus on how participants are constructing meaning from their experiences or using the process of meaning-making to develop understanding, knowledge or identity.

Although *what* questions are helpful and even essential to ensuring the fidelity of effective practices in the field, they do not encapsulate the sum of knowledge that is to be gained from studying professional development practices. In order to continue to make progress in bridging the research-to-practice gap, as researchers and professional developers we must know more about *why* and *how* professional development practices are perceived, understood, and used by practitioners to construct knowledge and everyday practices. Investigating *how* and *why* professional development experiences are made use of by

practitioners, would allow the field to develop frameworks and theories that improve practices and strategies that are leveraged with practitioners in the future. Qualitative research traditions, such as grounded theory and case study provide a design to help researchers construct theory grounded in participant data. These types of studies are timely in helping the field move beyond the *what* that has sustained the field for the last 30 years and into an expanded body of knowledge that allows us to consider frameworks for learning that include characteristics of participants' journeys.

The power and potential of investigations that focus on the theory development grounded in participants' perceptions are evident when we consider the very few studies that have ventured into the unchartered territory of illuminating *why* questions. Lori Caudle and Mary Jane Moran (2012) described a longitudinal study that investigated how preservice teachers develop new knowledge about their beliefs as they transitioned into in-service teaching positions. The researchers adopted Kathy Charmaz's (2002, 2008) interpretation of an emergent, analytic strategy, allowing dominant trends to inform and guide the generation of findings. Data were collected through one-on-one interviews with three college students enrolled in the teacher education program, through written reflections when the students commenced their internship/student teaching year, and through semi structured interviews when the participants concluded their second year of classroom teaching. The study describes that the three teachers grew from being uncertain about their beliefs to understanding how their beliefs informed their practice. The new knowledge is speculated to have been informed by the participants' growing acknowledgement of the relationship between their beliefs and practice. Caudle and Moran (2012) write, "…the findings illuminate (a) how initially the teachers' beliefs were unstable and nascent, (b) how a transactional nature between beliefs

and practice emerge… and (c) how these transactions led to more deliberate actions" (p. 42). These researchers come even closer to investigating the *experiences* of practitioners as they move from preservice to novice practitioners. Unfortunately, the study only captures three points in time along the four-year continuum of the study and attempts to make meaning out of the limited snapshots those data points provide. The study falls short of helping teacher educators, agencies/organizations, and researchers understand the depth of the experiences engaged in by practitioners and how they perceived themselves in relationship to those experiences and made meaning of them. We can see *what* changes in teacher belief occurred and some qualitative information and theorizing about *why* it occurred during the intervals between data collection, but we still know very little about *how* it occurred.

Very few studies delve deeply into the *how* questions especially as they pertain to how participants are perceiving and making meaning from the professional development experiences in which they are participating. Correa, Martinez-Arbelaiz, and Aberasturi-Apraiz, (2015) conducted a narrative inquiry designed to investigate beginning teachers' development of identity as they traversed their first years of teaching. Narrative inquiry as a methodology delves into participants' lived experiences through the narratives or stories participants compose about who they are and how they have become who they are (Clandinin & Connelly, 2000; Trahar, 2009). In this study, teachers were interviewed and given the opportunity to reflect on the context where they each worked and how they felt within the context. Additionally, teachers were engaged in analyzing the content of the interview and reflections and meaning was "negotiated" between the researchers and participants. Overall, this narrative inquiry investigated the dilemmas, problems, and tensions novice teachers experience when trying to carry out their work and innovations in the context of a school

constrained by tradition, a common culture, and predominance of teachers who have been acculturated to the existing workings of the school. The depth of the descriptive information is helpful in illuminating *what* teachers experienced and *how* they experienced it, but the methodology employed does not allow for theorizing with the data in order to develop a framework that can be generalized by others. Ultimately, a new framework for workplace learning is needed. A new framework would allow organizations and professional development consultants to revise and evolve their long-standing methods of providing professional induction and perhaps make efficient use practitioners' patterns of learning and experiencing.

A study lead by Michele Bauml (2011) moved us even closer to delving into the lived experiences of the individuals who traverse professional learning. She conducted a qualitative case study that demonstrated how five novice early childhood teachers utilized knowledge and skills from their teacher preparation program as a means of approaching curricular decision making for instructional practices. She showed *how* participants drew on their knowledge obtained from university courses and field experiences to make sense of their work and to guide their decisions to adopt, modify, imitate, or avoid what they had learned. Elder and Padover (2011) included in their study on the effectiveness of peer coaching when paired with professional development an examination of both the coach's and coachees' perspectives of the coaching model's effectiveness. Case studies like these allow for research questions that aim to understand *how* practitioners negotiate their experiences and make meaning from them, which may ultimately help the field understand how to provide professional development and induction activities in ways that promote practitioner meaning-making and utilization of practices. Additionally, case studies have the potential to

promote the development of a revised or new theoretical framework for how practitioners make sense of professional development experiences and construct competence and confidence.

Qualitative case studies have been used as successful vehicles for theorizing (see Dubois & Gadde, 2002; Eisenhardt, 1989; Eisenhardt & Graebner, 2007) in other fields and abductive methods of analysis could be applied to draw theory from case study data. In essence qualitative studies that focus on an analysis of the deep, rich experiences of participants, allow for researchers to dive deeply into *how* questions and derive a level of "knowing" about the experience that has been left unexplored. Researchers who have braved the qualitative fronts when it comes to professional development and workplace learning have contributed a great deal to our understanding of how participants use professional learning opportunities to transform themselves. Their findings are shaping how the field understands adult learning theory in the workplace. For example, McRae (2015) used qualitative case study methods to explore the conditions of work-integrated learning in cooperative education towards the development of a theoretical model. McRae analyzed four case studies based on interviews with participants, supervisors, and learning coordinators, which helped illuminate the dynamic interplay between and among characteristics of workplace learning in ways that contribute to the development of a theoretical model that can inform and be informed by workplace professional development initiatives. This type of study could be applied to early intervention induction professional development experiences to theorize about how practitioners made sense of their experiences and used them to construct knowledge and subject positions. The field could learn much more about what is going on from the practitioners' perspectives by using McRae's methods to analyze

theoretical patterns in how early intervention professional induction participants perceive and use their experiences to construct knowledge and subject positions.

Gaps in the Early Intervention Induction and Professional Development Literature

The preceding discussion indicates that overall multiple gaps and opportunities exist to inform and shape the field of early intervention professional induction. The gaps identified in the professional development and induction literature, as well as the opportunities to expand on methodologies in education (Bauml, 2011; Caudle & Moran, 2012; Correa et al., 2015) and workplace learning (McRae, 2015) are discussed in this section.

The importance of understanding and achieving fidelity with research–based early intervention practices has been emphasized by early childhood experts and documented in a number of studies over the last three decades (Halle, 1998; LeLaurin & Wolery, 1992; Odom & Strain, 2002; Wolery, 2011). Hundreds of studies exist that demonstrate positive relationships between adult learning strategies and positive outcome related to increased knowledge, skill, and impact of a professional development intervention as well frameworks for adult learning within the context of informal and formal workplace professional development. Despite the rich field of literature, early childhood special education and specifically the sub-specialty of early intervention continues to be plagued by a research to practice gap (Campbell & Halbert, 2002; Elmore, 2016; Metz & Bartley, 2012; Vanderlinde & van Braak, 2013).

As a field, we do not know enough about how practitioners are perceiving, understanding, and making sense of the professional development experiences afforded to them. Ultimately the limitation in the breadth of our collective knowledge limits us in our ability to design professional development and induction experiences that efficiently and

effectively capitalize on participant characteristics. Expanding our base of knowledge may allow us to apply a new theoretical framework to professional development and enhance outcomes for children and families. Based on an extensive review of the literature, I have identified several gaps that currently limit our ability to construct a revised theoretical framework, including (a) lack of studies focusing on the lived experiences of participants, (b) lack of studies related to the induction process, (c) lack of studies linking the rich literature on workplace learning to the context of early intervention, and (d) absence of diverse methodologies to help us understand the multiple perspectives and conditions that impact the uptake of professional practices.

Gap 1: Lived Experiences of Participants

Few studies have focused on the lived experience of engaging in professional development from the perspective of the participant to understand how participants are making sense of their experiences and perceiving themselves in the context of the experiences (see Bauml, 2011; Charteris, Smardon, Foulkes, & Bewley, 2017; Correa et al., 2015; Elder & Padover, 2011; Hobson & Ashby, 2012). The dominance of positivist studies in the field result in the suppression of the voices of the participants. In cases where participant voices are included, they are often filtered through the construct of a closed-ended survey. Presumably, participants have more to share about their experiences while engaging in professional development opportunities other than the helpfulness of the experience.

Hobson and Ashby (2012) argue that participants' accounts of their own experiences should be foregrounded in research as their perceptions of their experiences have deep implications in understanding *how* they 'become' successful practitioners in the field: "…to the extent that [participants] provide an accurate representations of their own truths, our

participants' accounts of the support their experiences are of fundamental importance because…they are central to many other aspects of their experience of becoming and being a teacher" (p. 180). However, Hobson and Ashby also offer a warning that focusing solely on participants' experiences and perceptions does have its own limitations as other "actors" in the experience may express differing 'truths' related to the support. As a field of study, participants' perspectives—and those interacting with them during professional development and induction programs--have largely been excluded from the discourse to the detriment of our models for adult learning. Moving from *what* questions to *how* questions pushes researchers to consider how participants involved in induction professional development experiences offer the potential to illuminate the experience from the inside, consequently informing the field in ways on which we have not capitalized.

Research focused on the impact and effectiveness of professional development efforts (i.e., *what* questions) is helpful, however it has not leveraged the power of all possible data sources relevant to the discourse. Participants' perspectives should be considered and included in research since it is beneficial for those who provide professional development opportunities as well as the beneficiaries of professional development to possess an appreciation of how the learners (i.e., practitioners) view, interpret and understand their experiences (von Glaserfeld, 1996).

Gap 2: Induction Professional Development Experiences Like Orientation

Little extant research chronicles the relationship between practitioner beliefs and practice across time as practitioners move into the field of early intervention. In looking at work in related fields, Ingersoll and Strong (2011) highlight 15 studies since 1980 that study the effects of induction programs such as orientation on beginning teachers. The studies cited

by Ingersoll and Strong (2011) as well as the scant few other studies located on induction were all empirical, and only one study found was related to the induction or orientation process of early intervention practitioners (Xie et al., 2017). The absence of induction in early intervention studies is surprising since an induction process is the primary means for early intervention practitioners to learn about performing their multi-disciplinary roles in the context of early intervention settings. The evidence-base for how to provide therapeutic intervention in the home mediated by families is vastly different from what practitioners learn in their pre-service programs. Workplace learning plays a key role in preparing and supporting practitioners for the realities of their early intervention positions, yet I could locate no studies investigating the process or outcomes of induction activities for this population of practitioners. This is an area of practice long overdue for investigating.

Gap 3: Workplace Learning as it Pertains to Early Intervention

The literature on workplace learning is perhaps the richest source of literature pertaining to formal and informal methods of practice-based professional development. Numerous studies focus on developing a framework for understanding workplace learning (Boud & Middleton, 2003; Jacobs & Park, 2009), the incidental learning that occurs in the workplace (Bell & Dale, 1999; Eraut, 2004; Marsick & Watkins, 1990), the conditions under which workplace learning is maximized (Bell & Dale, 1999; Marsick & Vlope, 1999; Watkins & Marsick, 1992), and the constraints of workplace learning (Manuti et al., 2015). Moreover, several studies exist that take an in-depth look at how workplace interactions are perceived by workers and used to inform worker subject positions. Early intervention and early childhood special education professional development could draw on the important work that has been done in workplace learning (specifically, Billet, 2001; Engestrom, 2001;

Eraut, Alderton, Cole, & Senker, 1998; Fuller & Unwin, 2002) in order to investigate and develop models for workplace learning uniquely suited to the field of early intervention.

Manuti and colleagues (2015) suggest that further research on workplace learning should focus on workplace learning in practice in specific industries and workplaces, rather than just in theory. Different workplaces provide considerable variation not only in what practices occur but in the ends towards which they aim; and studies investigating the learning that occurs in the workplace in one industry are not necessarily transferrable to other industries or disciplines. Drawing on the literature base of workplace learning, early intervention could expand existing professional development studies to include the informal and formal methods of learning that pervade the variety of early intervention workplaces and contexts in which early intervention is provided and may very well shape how agencies and organizations support their practitioners.

Gap 4: Diverse Methodologies

A review of the literature reveals an absence of and a need for qualitative studies to ground and provide the multiplicity of perspectives needed to understand how professional development is being experienced by participants; how they are making meaning of from the learning opportunities, organizational influences, and social interactions with their peers; and how they are perceiving their own evolving subjectivity as a practitioner. A scant few studies even attempt to employ methodologies that include participants in the process of analyzing data beyond the obligatory member checks. One could argue that the recipients of professional development experiences are in a unique and qualified position to illuminate their experiences and perspectives and enlighten the nuances that evade the field of

professional development facilitators and researchers and potentially impact how participants make use of professional development experiences.

Although the empirical studies pertaining to professional development provide a rich source of data regarding which adult learning strategies and techniques seem to yield the best outcomes, they are sorely lacking in providing the multiplicity of perspectives needed to understand why the research to practice gaps persists so strongly. As a field we have singularly concerned ourselves with *what* works (see Table 1) and in doing so, we have not attended to *how* or *why* it works. The privileging of positivistic methods to the exclusion of interpretive of constructive methods has resulted in a limited understanding of how early intervention practitioners develop competence and confidence through workplace learning. Future studies, leveraging diverse methodologies and methods, should focus on the missing elements that can help illuminate how early intervention professionals are perceiving and making sense of the informal and formal professional development experiences in which they participate. Additionally, future studies should focus on qualitative methodologies that can highlight the lived experiences of participants as they engage in the induction process. Early intervention research should look to the formal and informal induction methods and diverse research methodologies provided by workplace learning. Knowing *how* and *why* some early intervention practitioners gained knowledge and skill and some did not is helpful to the fields of professional development and adult learning and would ultimately help agencies/organizations streamline and individualize evidence-based professional development interventions in ways that contribute to the efficient, effective, and meaningful uptake by practitioners.

Summary of Chapter

In the preceding sections I reviewed the research methodologies and methods dominant in the early intervention induction literature, the early intervention professional development literature, and the professional development literature in the related fields of education, healthcare, and the allied health professions. I discussed the privileging of *what* questions throughout the professional development literature to the exclusion of *how* and *why* questions that have the potential to inform and refine our operational theories for workplace professional learning. I also discussed the gaps and limitations in the existing early intervention induction and professional development literature. Given the profound absence of studies that investigate professional induction in early intervention, despite the demonstrated need as evidenced by the research to practice gap, an exploratory study is needed to examine the conditions and/or processes that impact practitioners' construction of competence and confidence. What is needed are studies that leverage analytical methods for arriving at theoretical concepts that can inform a theory or theoretical framework from which empirical studies can further test. Grounded theory methods provide the tools needed to systematically investigate and interrogate the lived experiences of novice practitioners traversing their first months within the multidisciplinary field of early intervention. Small case studies thriving on practitioner perceptions and reflections can provide a platform for illuminating the conditions that breed practitioner competence and confidence. Employing underutilized methodologies such as qualitative case study and using grounded theory methods is sorely needed to breathe new life into a field of study struggling to maximize efficiency and accountability with increasingly limited resources.

Chapter 3: Methodology

Introduction

The preceding literature review illustrates the predominance of the early intervention professional development research focusing on adult learning strategies that measurably increase practitioners' knowledge, attitudes, and behaviors using positivist research methods. What these studies contribute in systematic evaluation of strategies, characteristics, and conditions they lack in attempting to describe, illuminate, and theorize about the role and perceptions of the participant, the early intervention professional. The field is in need of investigations that focus on the silenced voices that play a part in the efficacy of professional development—the professional.

Participants of professional development experiences, specifically professional induction, have had little opportunity to share with educational researchers how the act of participating in professional development experiences are perceived by them and used to produce both competence and confidence. The field of early intervention needs qualitative analyses that can broaden the privileged discourse in the field early intervention to include the voices, perceptions, and experiences of the practitioners who are the recipients of the multitude of professional development strategies imposed by administrators, supervisors, researchers, and politicians. These voices have the potential to inform the field about *how*, *why*, and *under what conditions* adult learning strategies produce the outcomes researchers are observing. The voices of participants largely have been suppressed, being heard only when researchers ask them to choose from pre-populated selections on a Likert-type scale. Is

it possible that the voices of practitioners might have something else—something more—to say? In order to expand the discourse, the field must accept that there is a place for qualitative research and specifically for the voices of participants. Space must be made not just on the periphery, but in the mainstream dialogue. Qualitative methodologies have the potential to illuminate the largely untapped "rich data nested in a real context of the lived experiences of participants that can be captured only by way of interactive processes between the researcher and the research participants" (Bloomberg & Volpe, 2016, p. 41).

Analyzing specific cases of professional inductions using a constructivist grounded theory methods (e.g.,, Charmaz, 2006; Clarke, 2005) and creating space for participants to collaborate in the analysis is well-suited to inform the early intervention field about how knowledge and practices are constructed by novice practitioners. Making room for the voices of the participants to be foregrounded not just in the reporting of the data, but also in the analysis is long overdue. Professional development resources that are becoming increasingly scarce must be used wisely, and illuminating the experiences and perceptions of participants may provide researchers and professional developers with needed insight to construct more efficient models of professional development that ensure implementation fidelity.

In this section, I describe a rationale for employing a collaborative grounded theory case study design for a study of early intervention professional induction, explain the key principles, assumptions, and analytical tasks employed by the case study methodology and grounded theory methods; and evaluate how methodological variations to a grounded theory tradition—a small case study approach, and participant collaboration with data analysis—can further inform the study of professional development induction experiences. I describe and analyze how a grounded theory and participant collaboration during data analysis of case

studies can contribute toward the construction of and/or enhancement of theories of adult learning in the workplace within the context of early intervention. I will describe the context and participants in the study. Finally, I describe how I attended to the project's validity.

Research Design and Rationale

The field of early intervention has been plagued by a substantial research-to-practice gap (Campbell & Halbert, 2002; Elmore, 2016; Metz & Bartley, 2012; Vanderlinde & van Braak, 2013). The research-to-practice gap refers to the period of time between the establishment of research-based practices and the mainstream implementation of those practices by implementers (Robinson, Saldanha, & Mckoy, 2011). Several reasons have been proposed for the research-to-practice gap, including a lack of preparation provided by institutions of higher education (Snyder et al., 2011), a lack of training opportunities that use research-based adult-learning strategies (Bruder et al., 2009; Dunst, 2015; Joyce & Showers, 2002; Snyder et al., 2012), a lack of knowledge within early intervention community as to professional development practices that are research-based and lead to utilization of practices (Bruder & Dunst, 2005; Bruder et al., 2009), a disconnect between what is being researched and what practitioners find practical (Elmore, 2016; Farley-Ripple et al., 2018) as well as existing attitudes and beliefs of early intervention practitioners that are incompatible with current evidence-based practices (Campbell & Sawyer, 2009). Despite the plethora of research on implementation science (Fixen et al., 2005; Gearing, El-Bassel, Ghesquiere, Baldwin, Gillies, & Ngeow, 2011; Metz & Bartley, 2012), which is concerned with understanding the process, procedures, and conditions that promote or constrain the transfer, adoption, and use of evidence-based intervention practices (Kelly, 2012), the research-to-practice gap persists (Campbel & Halbert, 2002; Elmore, 2016; Metz & Bartley, 2012;

Vanderlinde & van Braak, 2013). In the next section, I explain why and how a grounded theory case study and utilizing participants as analytical partners contributes to the resolution of the research-to-practice gap, and I will describe how the proposed qualitative research design contributes to knowledge production.

Case Study Design

Others are working on (and prolifically publishing) on the predictable relationship between the characteristics and consequences of adult learning approaches, specifically with regard to professional development (see Chapter 2). I propose, research also seek to understand the perceived reality of early intervention practitioners who engage in evidence-based professional development experiences, specifically novice practitioners as they are inducted into the field. Below I will highlight how the case study design is the appropriate vehicle for showcasing early intervention practitioners contextual perceptions of their orientation experiences because (a) the case is bounded, (b) provides multiple sources of data, and (c) provides an in-depth view of the experiences as they were lived by participants. Then, I will show how grounded theory methods and a collaborative approach to analysis the perfect accompaniment to illuminate the nuances that have alluded the field.

Yin (2014) describes case study research as that which involves the study of a case within a real-life, contemporary context or setting. Creswell (2013) writes, that qualitative case study is "an approach in which the investigator explores a real-life contemporary bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information and reports a case description and case themes" (p. 97). Early intervention professional induction is typically a process that occurs over time (three to nine months). As described in the preceding literature review, the

field is currently lacking in-depth studies that examine the induction process experience as it is traversed by new professionals entering early intervention. That is to say, an instance of a practitioner or group of practitioners navigating the induction process constitutes a bounded case that has, at this point, been under-studied.

Early intervention professional induction systems have the potential to provide a rich array of data sources that would contribute to thick, rich analysis. Creswell (2013) writes "A hallmark of a good qualitative case study is that it presents an in-depth understanding of the case. In order to accomplish this, the researcher collects many forms of qualitative data, ranging from interviews, to observations, to documents, to audiovisual materials." (p.98). Some early intervention programs collect and preserve a variety of data to inform the orientation process which can be used and further built upon (with the permission of the participants). For example, in my role as professional development coordinator at a state-funded early intervention program, I had access to documents produced by four novice practitioners who recently successfully completed an induction process and are implementing evidence-based practices with fidelity. The documents include field-based observations completed by supervisors and qualified peers and journals kept by the participants ss their experiential learning opportunities, interactions with others, and levels of confidence throughout the process. When paired with interviews to clarify and expand upon the journal entries, these data fit the profile for diverse sources of data required by case study design and have the potential to provide a depth of information about the experiences, perceptions, and tensions experienced by the participants.

Robert Yin (2014) notes that case study methodology is an advantaged strategy when *how* or *why* questions are being asked about a contemporary set of events over which the

investigator has little or no control. The case of early intervention induction experiences is well-suited for case study design since the questions that have not been fully investigated and need attending to involve *how* practitioners are constructing knowledge from their professional development experiences and *how* their experiences and perceptions mediate their subject positions as they traverse orientation. Engaging in a descriptive case study design provides a rich foundation of information and context to pair with grounded theory analytical strategies.

In this project, I employed two case study strategies to illuminate the induction process and experiences as perceived by four novice practitioners traversing professional induction within their early intervention agency. First, I employed an illustrative case study design to describe the professional induction process that was traversed by the participants (Chapter 4). The illustrative case study provides a detailed description of the professional induction process and the advantages and disadvantages to the participants, organization, and potentially to the future of the early intervention field. Second, I employed an exploratory case study design, using grounded theory methods to construct theoretical concepts grounded in the experiential data of the participants (Chapter 5). Together these approaches to analyzing the data provide breadth and depth to my agency's and the field's understanding of the experiences and perceptions that lead to practitioner competence and confidence. Next, I describe the historical foundations of grounded theory methods and describe how they are well-suited to systematically analyze practitioner data to develop a theoretical model of professional induction.

Grounded theory methods. Grounded theory marries two competing traditions in sociology: positivism (orienting Glaser) and pragmatism (orienting Strauss). Glaser and

Strauss (1967) developed the method at a time when qualitative research in sociology had become increasingly marginalized. Glaser and Strauss' description of grounded theory appealed to the qualitative community because of its "systematic guidelines for analyzing data and constructing theory along with its rhetorical power for legitimating inductive qualitative research" (Charmaz et al., 2018, p. 413). At the time, qualitative research was seen as unsystematic, impressionistic, and biased. They aimed to establish a cannon for considering rigor in qualitative research, eliminating the boundaries between theorizing and conducting research and increasing the accessibility of theory construction to live within the purview of qualitative researchers. The beauty of this approach was that it aligned with the positivist epistemological view, as it was systematic, replicable and rigorous (Bryant & Charmaz, 2007; Charmaz, 2006), and also incorporated the symbolic interactionism view, calling for 'human reflection, choice, and action' (Charmaz, 2008). Through grounded theory, researchers were given tools and techniques to develop studies that produced theoretical frameworks. Straus encouraged others to be creative with the use of grounded theory and experiment with ways to employ its tenants in their own particular research contexts.

Constructivist grounded theory was one such adaptation. Constructivist grounded theory evolved from the work of Corbin and Strauss and has been led by Kathy Charmaz (2000, 2006, 2008, 2014). Charmaz (2014) reminds us that the constructivist approach is reminiscent of Marx's view of history in that it treats research as a construction but also acknowledges that it occurs under specific conditions of which we may not be aware and which may not be of our choosing. Charmaz aligns herself with social constructivists Lev

Vygotsky (1962) and Yvonna Lincoln (2013), who stress social contexts, interaction, sharing viewpoints, and interpretive understandings (Charmaz, 2014).

Charmaz's constructivist view of grounded theory includes approaching data with an open mind and acknowledging preconceptions rather than denying them. Charmaz (2014) writes,

> Researchers can use grounded theory strategies without endorsing mid-century assumptions of an objective external reality, a passive, neutral observer, or a detached narrow empiricism. If, instead, we start with the assumption that social reality is multiple, processual, and constructed, then we must take the researcher's position, privileges, perspective, and interactions into account as an inherent part of the research reality. (p. 13)

Charmaz and colleagues (2018) describe constructivist grounded theory as bringing "an explicitly interpretive perspective to grounded theory and analyzes dynamic relationships between meaning and action" (p. 414). Charmaz (2014) believes that viewing the research as constructed rather than discovered fosters researchers' reflexivity about their actions and decisions.

The constructivist underpinnings proposed by Charmaz seem particularly relevant to apply to an early intervention induction professional development study. A constructivist paradigm is well-aligned with the phenomenon being studied as well as the epistemological position of the researcher. Constructivism asserts that learning is a social activity and is intimately associated with our connection with other human beings (Edwards & Mercer, 1987). In the case of the early intervention induction study described here, learning was built by interactions between the novice practitioner and the living world. Learning was situated in

the context of an interaction, and idea, the social environment of the workplace, previous experiences and knowledge of the novice practitioner, and the physiological state of the practitioner, and cannot be separated from those contextual components. Because contexts varied from person to person, similar experiences can, and likely did, result in diverse meaning-making among individuals who share them.

Grounded theory is a flexible, systematic, comparative method of constructing theory or theoretical concepts from data (Charmaz et al., 2018; Clarke, 2003; Glaser & Strauss, 1967). Grounded theory widens the scope and depth of analysis commonly used within early intervention professional development, which—as shown in the literature review—has largely been macro and quantitative. Grounded theory has the potential to show the connections between and among the macro structures that have been studied through quantitative processes. In addition to employing grounded theory analytical methods, providing participants with the opportunity to reflect on their documented experiences during their time in orientation has the potential to illuminate links between the orientation experiences and their subjectivities and perceptions. Grounded theory provides an opportunity to make sense of how practitioners' perceptions interact with what is known about the other essential characteristics of professional development opportunities. Through application of the systematic process of coding the data, comparing data to data and data to codes, theorizing within and across cases, and comparing findings to existing theories it is possible to illuminate practitioners' experiences in ways that have to-date been neglected. The timing seems ripe to "crack open" the unseen and unheard aspects of professional development and illuminate the perspectives that have not yet been studied through the

development of theoretical concepts that may inform existing frameworks or contribute to the development of a new one.

Participant collaboration methods. As stated previously, participatory research methods are also needed to foreground the voice of participant in order to illuminate he experiences as perceived by them. Collaborative or participatory research does not abide by strict rules, and a variety of methods for including participants in the research process exist (Bourke, 2009; Brydon-Miller & Maguire, 2009; Park, 1993). Cornwall and Jewkes (1995) argue that "the key element of participatory research lies not in the methods but in the attitudes of the researchers who in turn determine how, by, and for whom research is conceptualized and conducted" (p. 1667). For the purposes of an early intervention induction professional development study, I assert that participants should be involved not only in the data production process, but also in the analysis of their data. In this section I highlight the appropriateness of participant collaboration in a grounded theory case study project including, (a) participant collaboration ensures that the experiences and reflections of the participants are represented as they were and are perceived by the participants; (b) collaboration between researcher and participants ensure that researcher preconceptions are kept at bay while divergent perspectives are allowed to bubble into consideration, and (c) collaborative projects allow for knowledge to be co-constructed from multiple perspectives and perceptions.

Positioning participants as coresearchers provides an assurance that the experiences and reflections of the participants are represented as they were and are perceived by the participant. Charmaz (2014) writes, "As we learn how our research participants make sense of their experiences, we begin to make analytic sense of their meanings and actions" (p. 19).

I propose that participants are in a unique position to collaborate in the analysis of their experiences during the induction process. As they traversed the induction process, they documented and reflected on their interactions in an orientation journal. These logs can serve as the catalyst for elaborating on the experiences endured by participants and can be co-analyzed in ways the researchers alone could not adequately do. Close collaboration between the researcher and the participants, enables participants to tell their stories from their own perspectives using their journals as prompts. The participants' presence ensures that the researcher understands the perspectives of the participants during the orientation experiences. The researcher's presence ensures the participant is reflecting only on the experiences in the journal and focusing on her thoughts and feelings about those experiences during the time they occurred.

Collaboration between the researcher and participants can act as a kind of validity strategy in that researcher preconceptions are managed and it ensures that the perspectives of participants are the focus of the analytical discourse. In grounded theory research, it is particularly important that the researcher's preconceptions about existing theories and frameworks that can organize and explain the data be managed in order to allow new ideas and explanations to emerge. Dey (2007) contends that researcher preconceptions can limit theoretical innovation. Although Charmaz (2006) argues that that separating oneself from prior knowledge is impossible and unnecessary Charmaz also asserts that reflexivity is essential in order to accurately report how knowledge was co-constructed between the researcher and the data. The process of facilitating the analysis with research participants would seem to provide a level of self-awareness that is likely to help the researcher reflect on, manage, and compartmentalize her preconceptions. In order for participants to be seen

and treated as partners, the researcher must exercise self-control over what might otherwise have been a solitary activity and create space for participants to be heard. I argue the process of a researcher opening herself up to hear and consider new ideas offers a healthy contribution to the spirit of constructivist grounded theory.

In summary, every study that has investigated the effectiveness of a professional development approach, strategy, or technique has left in its wake a group of practitioners who have experienced the intervention and possibly (hopefully) been transformed by it. However, researchers in the field of early intervention have rarely collected data on the practitioners' perceptions and processes of constructing meaning from the experiences. The landscape of early intervention is overdue for case studies that provide an in-depth look at how practitioners are experiencing, perceiving and constructing meaning through induction professional development experiences. In this study, I employed case study design to illuminate the experiences of a small number of early intervention practitioners and using grounded theory techniques to construct a theoretical framework that shows how novice practitioners perceive and construct knowledge and subject positions.

Reconciling the Methodological Tensions in a Collaborative Grounded Theory Case Study

Applying grounded theory analytical methods to a case study design may, at first glance, seem incompatible, however, Strauss and Corbin (1994) invited others to use grounded theory strategies flexibly and in their own ways. Charmaz (2014) also advocates for using "flexible guidelines, not methodological rules, recipes, and requirements" (p.16). Grounded theory case study designs have been employed by others interested in taking an inductive approach to investigating previously unexplored aspects of a phenomenon.

Combining case study methodology with grounded theory methods has been employed in traditionally scientific fields of research such as healthcare, information technology, and information systems with success (see Dubois, & Gade, 2002; Eisenhardt, 1989; Eisenhardt & Graebner, 2007; Halaweh, Fidler, & McRobb, 2008). It is particularly instructive to look at Hughes and Jones (2003), who advocate that grounded theory is consistent with interpretive case studies that investigate social and organizational contexts. Hughes and Jones note that many researchers adopt grounded theory case study methods in order to "focus on rigor and traceability in substantive theory development" (p. 3). Applying the systematic grounded theory methods to the qualitative case study tradition promotes a theoretical analysis with the potential to advance or create models of learning that incorporate what can be illuminated from participant perceptions of their own experiences. Evolved models like this can help organizations provide more effective and efficient systems of professional development that capitalize on practitioner characteristics and tendencies illuminated in grounded theory case studies. In the next section I describe how I propose to resolve the potential incongruences of employing participatory grounded theory case study.

Both case study research and grounded theory research have specific stances on study design issues such as (a) research questions, (b) the role of propositions; (c) the unit of analysis; (d) the logical linking of the data to the propositions; and (e) criteria for interpreting findings. The manner in which these stances are addressed can vary within each methodological tradition and can lead to incongruence if not managed. In addition, the inclusion of participants as co-researchers also introduces a potential tension within the congruence of a grounded theory project. Participatory research can be seen in some contexts as lacking the objectivity and rigor that grounded theory systematic methods hope to

maintain. In this section I will address the five potential tensions between case study and grounded theory and propose a frame for considering participatory research in light of grounded theory case study.

Research questions. Both case study and grounded theory methodologies can address the *how* and *why* of a specific phenomenon (Yin, 2009, 2018). Within a case study design the researcher articulates a research question or questions as part of the study design. Within grounded theory, a research question is often not articulated. The researcher may designate a broad area of study and investigate patterns within the context of interaction of the participants. In grounded theory studies that do propose a research question, the question must be carefully constructed so as not to impose an assumption (Strauss & Corbin, 1990). Strauss and Corbin stress that in grounded theory the research question should be open-ended and not employ a construct derived from existing theories.

I propose that an open-ended research question that provides sufficient boundaries to define the case but is broad enough to allow for the construction of theory grounded in the data. In the case of early intervention professional induction, the grounded theory study illuminates the experiences of a small number of early intervention practitioners in order to construct a theoretical framework for how novice practitioners construct competence and confidence. For this study, my research question was ‘How do novice early intervention practitioners perceive and make use of their orientation experiences to construct competence and confidence?’ In this question, the topic is sufficiently broad to allow the research team (myself and the collaborating practitioner (coresearchers)) to creatively explore the relationships among multiple components within the question, including the orientation

experience, practitioner perceptions, subject positions, confidence, attitudes and beliefs, and knowledge production, but also anchors the focus necessary for a case study approach.

Role of propositions. Case studies often have study propositions that "direct attention to something that should be examined within the scope of the study" (Yin, 2009, p. 21). The propositions help point the researcher to what is being studied and provides the foundation for what data are collected and included in the study and helps provide boundaries for the case. Yin points out that some case studies do not have propositions because they are exploratory in nature. Although helpful in a case study, propositions impose assumptions on the study that may be constraining to the work of grounded theory. Instead grounded theory projects may make use of "sensitizing concepts" which represent the researcher's interests in the subject matter and bound the study in a different way (Charmaz, 2006). Sensitizing concepts are less constraining and broader than propositions and researchers have the flexibility to drop them during the course of the study if they become too constraining. Charmaz notes that grounded theory researchers loosely hold their sensitizing concepts that serve as vantage points to getting started but are not intended to confine the study or the researcher.

For the research project, I have adopted Charmaz's sensitizing concepts to establish the focus and the boundaries of the project. The research questions proposed above captures the sensitizing concept that participants construct competence and confidence experiential participation. Since the induction experiences are heavily mediated by peer coaching, the design of the study also adopts sensitizing concept that peer coaching influences competence and confidence. These assumptions can be dropped if the data begin to show that other

factors emerge from the data as the predominant influences of practitioner competence and confidence.

Unit of analysis. A fundamental activity of both case study and grounded theory is identifying the unit of analysis. In a case study the unit of analysis establishes the boundaries of what is included in the 'case.' The case can be an individual or a group of individuals that share a specific set of characteristics or circumstances. Within a grounded theory study, the unit of analysis is much smaller, but still must be defined (Charmaz, 2006; Glaser, 1992; Strauss & Corbin, 1990). In grounded theory the unit of analysis is typically an incident and it is not uncommon to have several hundred incidents among the participants.

For this study, I have identified macro and micro units of analysis to be studied concurrently. The macro unit in this case is the induction process navigated by four novice early intervention practitioners. Case study provides a lens for analyzing this macro unit, illuminating a deep, rich context of the phenomenon (i.e., experiences). The micro units are the thoughts and reflections individuals shared about their experiences in the journals and during the interviews. Grounded theory is well-suited to provide a structure for analyzing the micro units that emerge from the data.

Logical linking of the data to propositions. A variety of methods for linking the data to propositions exist within a case study design and none are considered the gold standard for a traditional case study (Yin, 2014). Grounded theory, on the other hand employs specific, systematic phases of analysis in order to illuminate the data in ways that generate and explain themes and develop them into a theoretical framework. The strength of the marriage between case study and grounded theory may lie in grounded theory's ability to provide a systematic way of looking at and into the rich, multi-dimensional cases provided in

the study. The case study brings a richness and depth of data, while grounded theory provides a multi-layered method of analyzing those data. The incongruences can actually be seen as a symbiosis when used together. When employed in tandem, I was able to systematically analyze the case and from the analyses develop theoretical framework that can informs how competence and confidence are constructed by novice practitioner engaging in experiential workplace learning mediated by peer coaching.

Criteria for Interpreting Findings

Criteria for interpreting findings is the least developed component of the case study approach (Yin, 2014). Studies that combine a case study and grounded theory approach can lean heavily on the strengths of grounded theory to provide a structure to the process of interpreting the findings. Within the grounded theory methodology, the findings, or assertions, are systematically analyzed until a theoretical framework can be constructed and discussed.

Participatory research and rigor. The process and practice of participatory data interpretation and analysis is underutilized in educational research and qualitative research in general (Byrne, Canavan, & Millar, 2009). In this project, the practice of engaging the participant is believed to strengthen the integrity of data interpretation by ensuring that the participants' thoughts, attitudes, and beliefs at the time of the induction process are represented along with their words in the presentation of the research. Collaboration in qualitative research requires a kind of rigor that a lone or independent researcher might not be aware of or need (Weston, Gandell, Beauchamp, McAlpine, Wiseman, & Beauchamp, 2001). When the co-researchers are participants, participant voice are the focus (Eisner, 1998).

In addition, participant collaborative research allows the study to highlight the telling of the case using the voice and ambiance of the participant. Participatory research enlivens the case study design by filling the gaps in the extant and interview data with the explanatory details that can only be provided by the participants. The co-researchers ongoing involvement provides immediate and unlimited access to fill the need for ongoing data collection brought on by the layered coding process. Participants can be particularly keen at ensuring that codes are determined and described using language that best captures the qualities of the experiences as perceived by them. Constructivist grounded theory does not claim to uncover an objective truth, but rather uses data to construct theories or theoretical concepts. Since theory emanates from the data and is constructed during the grounded theory process (Charmaz, 2008), having been the architects of both the experiences and the extant data, participants are the ideal collaborators. Participants are in the qualified position to illuminate and explain their experiences and perceptions and construct meaning from them.

Participatory research allows for multiple interpretation of each unit of data and forces the interpretations to be discussed. Inconsistencies in interpretation can provide opportunities for reflecting, memoing, and discussing. Grounded theory is an active process and the role of engaging multiple researchers with diverse perspectives and experiences related to the data offer the potential of multiple and creative discussions. The discussions are apt to provide fodder, if not an enhancement of the analysis that leads to theorizing. Within the framework of constructivist grounded theory, the multiple perspectives and diverse interpretations mediated by collaborative discussions provided a productive climate for the co-construction of the theoretical concepts that formed the proposed theoretical framework in Chapter 5.

In summary, Strauss affirmed that grounded theory should "change with the time" and be attuned to "contemporary intellectual trends and movements (Strauss & Corbin, 1994, p. 296). Strauss welcomed potential adaptations, reasoning that "no inventor has permanent possession of the invention—certainly not even of its name—and furthermore we should not wish to do so" (p. 283). While flexibility is an asset of qualitative research, congruency is also required. Although tensions have been noted above, I argue case study, grounded theory, and participatory research have the potential to fit together symbiotically. The "rich, thick" descriptions provided by a case study design provide an appropriate context for understanding the lived experiences of a small group of early intervention practitioners, while grounded theory's systematic analytical techniques provide a mechanism for illuminating experiences and grounding assertions about *why* and *how* participants construct competence and confidence. Collaborative grounded theory case study strategies allow for both within-case and cross-case analyses as well as an opportunity for assertions to be presented as theories. The participants' role in data production and analysis ensured that the data both represent and adequately describe the experiences and perceptions of the participants.

Applying Key Principles and Assumptions of a Participatory Grounded Theory Case Study to an Early Intervention Induction Study

Grounded theory is a theory-generating methodology that was designed to bridge the gap between researchers and theorists, allowing researchers a mechanism for theorizing (Charmaz et al., 2018; Corbin & Holt, 2011). The end product of a grounded theory study is a set of grounded concepts that can contribute to a theoretical framework that explains how and why persons might respond to a situation. In the case of this early intervention

professional induction process, the grounded theory method employed within a case study produced a set of concepts that contributed to a unifying theoretical framework that explains how participants make meaning from the experiential learning opportunities and the peer coaching they have been provided. The study does not start with an existing framework or a priori categories by which the data were sorted and interpreted. Rather, the categories arose from the data by use of a series of systematic steps designed to produce and illuminate the experiences, perceptions and meaning-making of the participants.

A hallmark of grounded theory is the concurrent, systematic process of collecting, coding, and analyzing the data, which Charmaz (2006) describes as "intertwined" and "codependent." Data collection included extensive interviews, as well as elicited and extant texts. Coding occurred in two phases, initial and focused coding. Although data collection and analysis did not reach theoretical saturation, the process did culminate in the beginnings of a theoretical framework that can be built upon. Then theory is constructed from the data: "Interpretive theories allow for indeterminacy rather than seek causality and give priority to showing patters and connections rather than to linear reasoning" (Charmaz, 2006, p. 127). The sections below describe how Charmaz's interpretation of constructivist grounded theory methods were applied in this particular case study of early intervention induction. I describe the research setting and the participants and discuss how extant organizational data were used to promote the production of new analytical data and how the data were analyzed and used to produce theoretical concepts and ultimately a framework.

Research Setting/Context

This study focused on the professional induction experiences of novice early intervention practitioners hired to work at the Family, Infant and Preschool Program (FIPP),

an early childhood and family support program in Western North Carolina between 2016 and 2018, where I also work. FIPP has a long history of providing high-quality evidence-based early intervention practices and a legacy of having been instrumental in conducting the early research that influenced national and state regulations related to how early intervention is administered under the IDEA (2004). FIPP employs a model demonstration for how to provide evidence-based early childhood and family support practices using a family's natural environments and everyday routines when to promote the development of a child with a disability or developmental delay. Multidisciplinary practitioners (i.e., teachers, physical therapists, occupational therapists, speech-language pathologists, nutritionist, and nurses) conduct home and community visits to teach parents and caregivers how to promote interest-based child learning opportunities within the context of everyday family and childcare activities and routines. The goal of the support is to increase the child's participation and competencies in family and community activities and routines (e.g., dressing, feeding, bathing, bedtime routines etc.). Practitioners use a coaching style of interaction with families in order to help families build the knowledge, skills, and confidence needed to support the child's participation and learning between visits, when the practitioner is not present. Practitioners work with families during home or community-based visits (e.g.,, neighborhood park, grocery store, childcare program) for a duration and frequency determined jointly by the parent and practitioner at the onset of services. Professionals from all over the world visit the agency to observe and learn the practices that have capacity-building consequences for parents and caregivers and positive developmental outcomes for children.

In addition to the historical significance of FIPP, it also employs significant infrastructural characteristics. Practitioners within FIPP are assigned a "practice coach" who

is responsible for providing support to her assigned coachees (direct service practitioner) upon request. During the 30-month period where new-hires were engaging in the induction process and producing the data that served as the focus of this study, the organization underwent a transformation of its organizational structure, eliminating hierarchical supervisory lines wherever possible in lieu of self-managing teams with joint accountability.

Also during the period in which participants engaged in orientation, the professional induction process underwent a transformation. The "old orientation process" (as it will be referred to here) was organized based on Bloom's taxonomy of learning (Bloom, 1956). Novice practitioners were given learning experiences to (a) promote their understanding of evidence-based practices and then (b) provide them with opportunities to use the practices, and (c) finally prompt them to synthesize and evaluate their systematic use of the practices across contexts and diverse family situations. Practitioners' tasks evolved from simple to complex. Novice practitioners were supported to describe and identify practices before they would use and analyze them. After extensive experiences with using and analyzing they were supported to synthesize and evaluate their knowledge and experience and generalize to new situations (see Table 2). The old orientation process typically took nine months to a year for practitioners to reach fidelity in their utilization of the target practices.

Table 2

Comparison of Two Induction Processes Used by the Organization

	Old Process	New Process
Theoretical framework(s)	Blooms Taxonomy (Bloom, 1956)	Experiential Learning (Kolb, 1984) Workplace Learning (Fenwick, 2008) Coaching (Rush & Shelden, 2020, 2019)
Key Features	• Practitioners learned in successive stages (identify, describe, demonstrate, practice, synthesize). • Practitioners developed competence at one stage before progressing to the next. • Reading, discussing, and role playing preceded real-life practice opportunities. • Real-life practice was withheld until practitioners proved competence. • Learning activities were planned and prescribed by supervisors.	• Practitioners engaged in real-life practice on the first day. • Peer coaches provided the requisite support to novice practitioners during home visits to ensure visits were successful. • Discussion, reading, and role play were used after real-life practice to prepare for the next visits. • Experiential learning was dominated by real-life work experiences. throughout the orientation process • Learning activities were jointly determined by each practitioner and her coach.
Time to Completion	One-two years	Approximately 75 days

The new professional induction process used constructivist theories of learning that focused on the use of a coaching interaction style (Rush & Shelden, 2020) and experiential workplace learning opportunities (EWL) (Kolb, 1984). Each novice practitioner was assigned an orientation coach. The coaches were certified early intervention fidelity coaches, meaning they demonstrated fidelity to natural learning environment practices, family-centered practices, teaming practices, and coaching and an ability to support the learning of other

practitioners as they journey to proficiency. The coaches met with their assigned practitioners several times each week. Learning through the hands-on experience of engaging in the everyday interactions of their work provided the foundation of the learning experiences.

The orientation coaches used a coaching interaction style with the participants. Coaching is a capacity-building interaction style in which the coach promotes the learner's ability to reflect on his/her actions as a means to determine the effectiveness of an action and develop a plan for refinement and use of the action in immediate and future situations (Rush & Shelden, 2020). Evidence-based coaching is characterized by *joint planning* where by the coach and coachee together plan what, where and how the coachee wants to learn; *action/practice* where by the coachee practices or implements specific skills or strategies in real-life contexts; *observation* where by the coach observers the coachee and if needed the coachee observes the coach model a practice or strategy, *reflection* where by the coach prompts the coach to reflect on the effectiveness of the action or practice and plan for continuous improvement; and *feedback* where by the coach provide information, affirmation, or evaluation of a coachee's practice (Rush & Shelden, 2020). The coach jointly planned with the practitioner prior to each early intervention home or community visit with a family; the coach observed the practitioner implementing agreed upon parts of the visit and the practitioner observed the coach modeled evidence-based practices; the coach focused on just-in-time learning opportunities to promote the practitioner's active participation during the real-life visits and promoted the practitioner's reflection in and on action; and the coach provided the practitioner with modeling and informative feedback.

The bulk of each practitioner's orientation experiences were conducted during real early intervention home or community visits with opportunities for reflection and feedback.

The coaches were instructed to provide maximum opportunity for the practitioners to engage in action/practice during each early intervention visit. When planning for each visit with the practitioner, the coach considered how to maximize the novice practitioner's participation and leadership within the visit, including tasks like explaining the program, following up on the previous joint plan, initiating the real-life activity, introducing and/or modeling responsive teaching strategies, reflecting with the family, providing informative feedback to the family, facilitating the development of a new joint plan with the family, and promoting parent self-attribution. Coaches facilitated opportunities for the practitioner to interact with families during the visits. The level of leadership during a visit provided by the practitioner was determined based on the practitioner's demonstration of knowledge and skills during previous visits and during preparatory conversations.

My role within the organization during the time of the study was to coordinate professional development for all staff members (i.e., coaches, novice practitioners, and experienced practitioners) in order to maximize practitioner implementation fidelity and ensure the viability of a robust model demonstration. My role included overseeing the orientation and induction process for new employees. I provided support to the assigned orientation coaches and regularly monitored the progress of the novice practitioners by conducing observations in the field, observing their participation in work meetings, and engaging them in conversations about their experiences. I collected and read their orientation logs and provided feedback to their coaches about their experiences so that coaches could respond to their changing needs and provide responsive support.

Table 3.

Summary Demographic Information for EWL Induction Participants

Start Date	*Name*	*Discipline*	*Level of Ed.*	*Years of Exper.*	*Years of Exper. in EI*	*Race/ Sex*	*Duration of Formal Orientation*
6/20/16	Tanya	Speech Language Pathologist 1	MA	12	2	White/ Female	80 days
7/20/16	Jennifer	Physical Therapist	DPT	0	0	White/ Female	72 days
12/4/17	Amber	Early Childhood Educator	BS	0	0	White/ Female	170 days
7/2/18	Rebekah	Speech Language Pathologist 1	MA	3	0	White/ Female	76 days

We discovered that the duration of the new professional induction process was significantly shorter than the old orientation process (See Table 3). Three of the practitioners completed induction and reached fidelity in under 90 days and one reached fidelity in approximately 170 days. Once it was determined that the new professional induction process resulted in deep and efficient learning with advances in fidelity to evidence-based practices (i.e., *what* works), as demonstrated/evidenced by systematic observations and analyses of their practices against the research-based indicators of fidelity to the practices, I identified the need to investigate *how* the induction process worked. This dissertation project aimed to look more closely at the perceptions of the participants as they engaged in, made sense of, and constructed their learning experiences in order to understand how and why their experiences resulted in efficient learning and implementation of the target practices.

Research Participants

Theoretical sampling when applying a case study methodology is an appropriate way to collect cases. Theoretical sampling means that cases are selected because they are particularly suitable for illuminating and extending relationships and logic among constructs. Cases are chosen because they are unusually revelatory, extreme exemplars, or opportunities for unusual research access (Yin, 1994). Single case research typically exploits opportunities to explore a significant phenomenon under rare or extreme circumstances. When engaged in an inductive case study method, it is not necessary for cases to be repetitive of a sample. Eisenhardt and Graebner (2007) note, "The purpose of the research is to develop a theory, to test, so theoretical (not random or stratified) sampling is appropriate" (p. 27).

This study investigated the professional induction process of four novice practitioner participants. The participants included two speech language pathologists, one early childhood educator, and one physical therapist. Three of the four participants had advanced degrees in their disciplines. Two of the participants were hired directly from their university programs and were engaging in their first professional employment experience. Two participants had worked in their field of study in a non-early intervention context providing speech-language services in the public-school system. Each participant was given a pseudonym in order to protect their confidentiality (see Table 3).

Three participants began their professional induction process on the first day of their employment. Orientation coaches were instructed to maximize participant time in the field on the first day and provide hands-on learning experiences as quickly as possible. Each participant experienced at least one home/site visit on their first day of employment with one participant experiencing five visits. Three participants took an active role (facilitating a part

of the visit) on the first day, while all five took an active role within the first three days. Due to staffing challenges, Tanya's formal orientation was delayed two-months from her date of hire. She engaged in observations of her colleagues and read literature pertaining to evidence-based practices at her desk prior to being assigned an orientation coach and beginning the experiential learning induction process.

The new professional induction process was explained to all participants on their first day of employment with the organization. Ninety days after the orientation process was completed, each participant was asked if she wanted to participate in a research study by allowing her orientation data to be co-analyzed by herself and the researcher. Each participant was given the informed consent form (Appendix A) approved by the Appalachian State University Institutional Review Board (IRB) and agreed to participate (Appendix B). Prior to engaging in the study, I engaged in a pilot study with one participant, engaging in preliminary conversations about her induction experiences and data in order to develop and refine the data production methods, interview questions, and co-analytical methods. The preliminary data (pilot data) gained from this step is included in the final analysis.

Data Collection and Production Methods

Data collection for this study evolved during the course of the study and ultimately involved extant texts, interviews, and elicited texts as data sources (Charmaz, 2006). Initially, I planned to rely heavily on the novice practitioners' orientation journals (see excerpt in Appendix C) and after conducting initial coding planned to include the participants/co-researchers in co-analyzing units of data that I determined to have theoretical significance. As I started working through the extant texts during initial coding, I was quickly overwhelmed by the vast amount of data and the multiple possible interpretations. Each

experience as described by the participant included a dozen ideas or concepts all of which could have categized the experience. I quickly enlisted support from my colleague, Allison Lane, Program Coordinator, who generously agreed to help me think through the data and attempt to make sense of the information. It was our intention to complete the initial coding of the data and create the "analytic framework" (Charmaz, 2014, p. 113) that would structure the focused coding process prior to the participation of the novice practitioners to engage in focused coding of their journals.

After two, three-hour sessions we concluded that the extant data were incomplete and partial. We needed to pull the novice practitioners into the process sooner than we planned to hold us accountable for staying close to the data and not making assumptions not grounded in the data. Because journals are written quickly and sometimes on the fly, it seemed like we were struggling with making assumptions about what was meant by a word or phrase. During our second coding session, we asked for a participant to meet with us and clarify her entry. In doing so, we became acutely aware of the rich, multitude of data that existed with the participant and never made it to paper. Allison and I immediately agreed that the participants had a more important role than simply helping us analyze the units of extant data we selected as theoretically significant. We needed them to help us understand and select the theoretically significant data. They needed to be interviewed in the early stages of the process. They needed to tell their stories with all the colorful, turbulent, detail in which they were embedded. They and their stories needed to help us determine the key categories in which the units of data rested. We needed for their analysis to be unfettered by our assumptions and decided to have the participants take the lead on identifying the theoretically significant

entries prior to engaging in co-analyzing. I revised my IRB application to include a semi-structured interview earlier in the process.

The initial process included asking each participant to review their own journal. Participants were prompted to independently review their own journal entries and identify those that were "significant" or "meaningful to their learning." Participants were not given a common definition of "significant" or "meaningful," but were prompted to look at their data and determine for themselves. This sorting activity was a precursor to engaging each participant in a semi-structured interview about her purpose for choosing each entry, her criteria for determining "significance" and "meaningfulness" and how the incident shaped her confidence, attitude, or thoughts as an early intervention practitioner; and how the practitioner believed learning was occurring.

The following questions were used to provide some structure to the interviews:

- How did you decide this entry was significant for you?
- Tell me more about what was meaningful to you about that experience?
- How do you know this experience was important to your becoming a capable early interventionist?
- How did this experience impact your confidence as a practitioner?
- How did this experience impact your attitudes and beliefs about your own capabilities?
- How does this experience showcase who you were as a practitioner at this point in time?
- What else do you think is important for me to know about this experience?

Only the questions needed to prompt elaboration and propagate a rich conversation were used. The interviews/collaborative sessions were not audio or video recorded, but rather both the participants and I took notes during the discussion and as we came to consensus on the underlying theme(s) for concept(s) we agreed upon or phrase to describe the theme or concept. The notes and constructed phrases served as the elicited texts described below.

Initial coding. During the interview process each participant and I also engaged in analyzing her responses by applying an initial coding process (Charmaz, 2014). The process of initial coding helps the researcher to move toward later decisions about how to define core concepts and categories. This step asks the researcher to compare data with data to learn what the participant is experiencing. Initial coding sticks closely to the data and curbs the researcher's tendency to make conceptual leaps and adopt theories prior to the necessary analytical work. Charmaz writes, "The openness of initial coding should spark the researcher's thinking and allow new ideas to emerge" (p. 47). These initial codes are provisional, comparative, and grounded in the data.

While the summary and the stories that produced it were still fresh in our minds, the co-researchers worked together to identify a word or phrase that represented the central meaning behind the entry. Together, we applied the constant comparison method (Glaser & Strauss, 1967) by comparing the key word/phrase to the previous key words/phrases that we constructed from the data. When the sentiment behind the summary was the same, we aligned the key words/phrases and adopted the one that most aptly represented all the entries using that phrase or modified the phrase to encapsulate all the data assigned to it. As units of data were analyzed, the constant comparative method helped establish analytic distinctions between and among categories. Data were compared with other data to locate similarities and

differences and decisions were made that the two units of data are similar enough to be categorized the same or different enough to define different categories (Glaser & Strauss, 1967; Charmaz, 2006). We defined each category as it developed and evolved the definitions as the categories were populated to aid in the process of determining a "goodness of fit" with each new unit of data. We employed Glaser's (1978) recommendation of coding with gerund statements when possible to aid detecting processes and sticking to the data. This strategy can help make sure the code fits the data rather than trying to fit the data to the code.

Each unit of data was laboriously compared in the same way until categories were populated. As data are coded researchers can often see gaps or areas in which data are needed. Scantily-populated codes alerted us that more data were needed and directed our attention to look more closely at the entries to determine if we were missing something. When it was determined that additional data in the journals, nor in the interview summaries supported the low incident codes, they were disregarded. Once the initial coding process was underway, Allison left and the participants and I continued with our plan for the duration of the study.

Focused coding. The plan had been to engage participants in the analytic process through the focused coding stage. After the co-researchers established strong analytic directions through initial coding, we determined that the project had commanded more participant time than could continue to be sustained. I engaged in the focused coding process independently and brought the participants back in for a joint discussion once the focused coding yielded a draft theoretical framework. Focused coding involved using the most significant and/or frequent earlier codes to sift through large amounts of data (Charmaz, 2006). Charmaz asserts that focused coding forces the researchers to "make decisions about

which initial codes make the most analytic sense to categorize your data incisively and completely (p. 58).

I uploaded the participant data into a qualitative software package (NVivo 12 Plus) to expedite and increase the rigor of the process of focused coding (Leech & Onwuegbuzi, 2011). Focused coding required combining and refining categories and using them to construct theoretical concepts that are grounded in the experiential data (Charmaz, 2014). The process of focused coding required analyzing how categories are associated with one other, looking closely at what high-frequency categories reveal, being concise and comprehensive, and framing the categories in terms of the research question (Polit & Beck, 2010). Halaweh, Fidler, and McRobb (2005) recommend using the focused coding process to identify the central or core category with represents the main theme of the research. When a core category appears repeatedly in the data and provides a context for the category, the data, it grounds the theoretical model. During focused coding, I went back through the categories and made decisions about which categories could be combined into enduring themes. From 98 categories, 6 major themes developed (see Appendix D for the initial and focused codes and a sample of data that informed them).

Figure 1 visually documents the process of collecting and analyzing the data across participants as well as the tandem relationship between analysis and theorizing. The diagram also shows how the analytic process informed and was informed by the case study descriptions. Below, I describe each component of the process and discuss how the steps were performed.

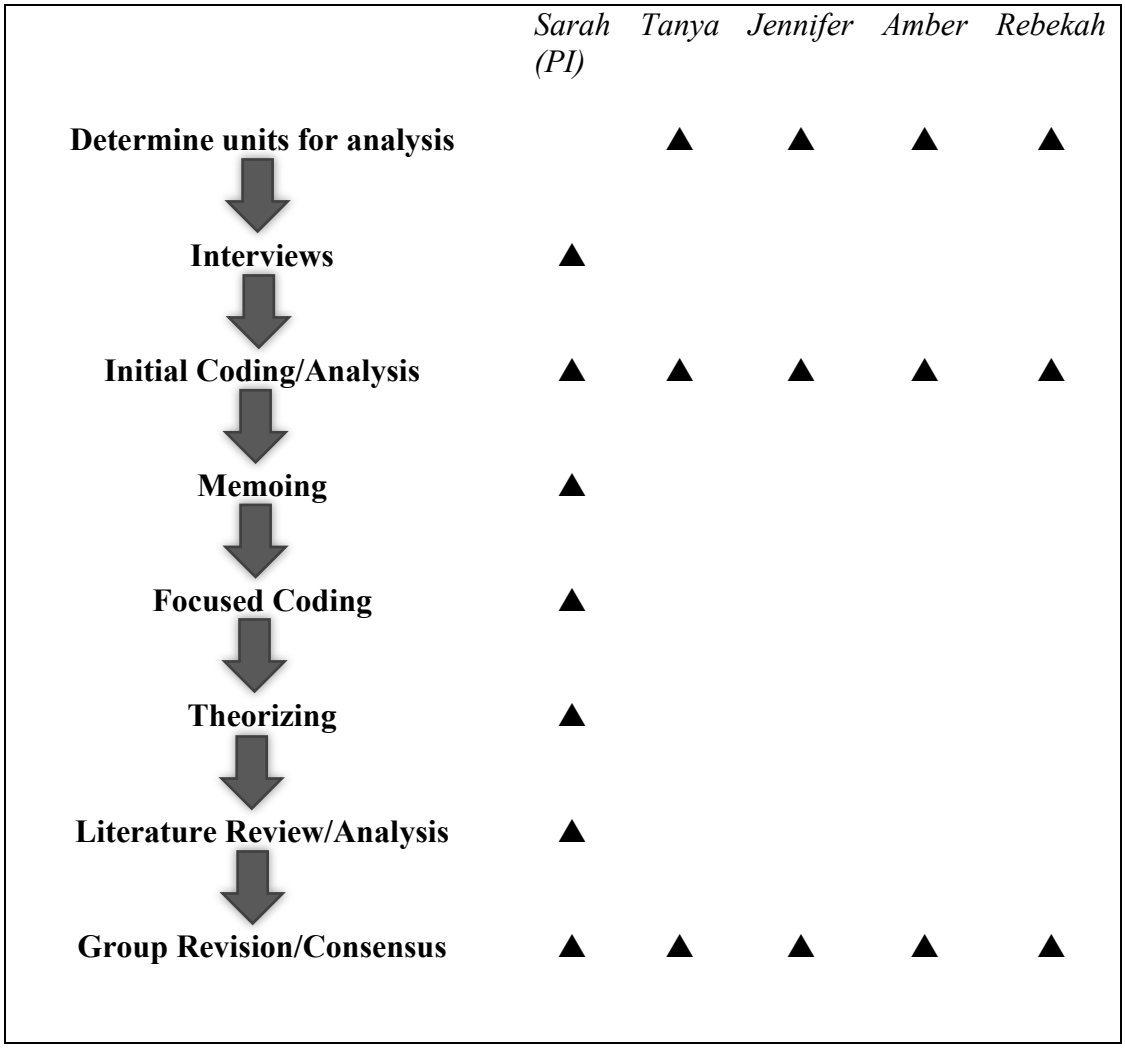

Figure 1. Process for collecting and analyzing grounded theory case study data.

Memoing. During and after each session with each participant, I produced procedural, reflective, and theoretical memos to record my ongoing actions and interpretation of the data and the process (Charmaz, 2014). Memos also provided an outlet to reflect on the research process including struggles, tensions, and biases that emerge. Constructivist grounded theorists engage in reflexivity through memoing about their constructions and interpretations of data throughout the inquiry. As recommended by Charmaz (2006), I reflected on my role in the research process, influences of my presence over data production,

the underlying meaning in the participants' stories, and how my own biases, perceptions, and interpretations may be conforming the data. Charmaz (2018) asserts, "Engaging in reflexivity and assuming relativity aids us in recognizing multiple realities, positions and standpoints—and how they shift during the research process for both the researcher and the research participants" (p. 417). The memos became important tools to prompt and capture thoughts about my own biases, intuitions, and concerns about the efficacy of the process or data.

Periodically as we moved through the data, I took time in solitude to read back through my memos and consider old entries in light of new thinking and new thinking in light of old entries. I eventually coded the entries to help me organize and make use of my thoughts as I theorized and to help me reflect on my methodological process and I engaged in the writing process. The memos themselves became another source of data and were analyzed by the researcher. Then, I applied initial coding to the memos to develop categories and focused coding to reduce the categories into themes. The memos confirmed that my own thoughts about and impressions of the data were aligned with the practitioner's codes and provided an ongoing record of the theorizing with the data that was occurring during the conversations. I reviewed the memos several times during and after data collection and helped formulate the analysis into a theoretical framework.

Theorizing. Rooted in pragmatism and relativist epistemology, constructivist grounded theory assumes that neither data nor theories are discovered but instead are constructed by researchers as a result of their interactions with the participants, data, and emerging analysis (Charmaz, 2008, 2014; Thornberg & Charmaz, 2012). The intent of grounded theory is to move beyond description and to generate or discover a theory—a

"unified theoretical explanation"—that might help explain a practice or provide a framework for further research (Corbin & Strauss, 2007, p. 107).

Theorizing began to emerge through the process of memoing and as each participant and I discussed emerging themes and important ideas. The emerging theoretical concepts were written and described within the body of the memos and sketched out on a white board that laid across my worktable. The theoretical framework is often represented in a diagram and hypotheses of actions, interactions, or processes through interrelating categories of information based on data collected from individuals (Bloomberg & Volpe, 2016). Manually diagraming concepts their relationships to one another significantly aided the process of reducing categories by combining themes that address the same theoretical concepts. Once theoretical categories were narrowed and fully defined and described the theoretical framework began to take its final form.

Theoretical saturation. Charmaz (2006) advises that data collection and analysis continue until theoretical saturation is reached. Theoretical saturation can be tested through theoretical sampling. Theoretical sampling focuses on finding new data sources that can best explicitly address specific theoretically interesting facets of the emergent analysis. Theoretical sampling is a fundamental strength of a grounded theory approach (Clarke, 2003). Through theoretical sampling coupled with theoretical sensitivity, I strived to ensure that the raw data was reflected or grounded in the final theory produced (Bloomberg & Volpe, 2016, p. 50).

I conducted theoretical sampling by sampling units of data from the journal that were not selected by the participant as significant. My intention was to sample the data for the presence of the emerging theoretical concepts to help define or describe them. In reality, this

step did not produce any new examples, definitions, or descriptions likely because the richness of it paled in comparison to the units of data that were selected by and elaborated on by the participants during the interviews. Although new theoretical concepts were not constructed during theoretical sampling, due to the small number of participants, theoretical saturation should not be assumed.

Considerations of Possible Ethical Issues

Although grounded theory research has no inherent ethical limitations, considerable potential ethical considerations exist when one is conducting research at one's own workplace in collaboration with colleagues. Workplace-conducted research has the potential to reflect researcher biases brought on by the navigating the dual roles of researcher and employee, may produce perceived financial and/or social hardships, and may potentially be seen as non-voluntary by the participants. In addition, the participatory research design used caused somewhat of a hardship of time among participants, as their roles are significant and time consuming. In this section, I elaborate on the ethical considerations and how I attempted to mitigate them.

Researcher bias. Navigating the role of researcher and leader within the agency where the research is being conducted posed several ethical considerations. Having lead the redesign of the orientation process in which the participants engaged may have made me biased about the positive influence of the orientation process over the participants' gains in knowledge and use of the target practices. I may have made assumptions about the importance of design features or supports provided that are not reflected in the experiences or perceptions of the participants. Although I did not directly supervise any of the participants, I was in a position of power and influence within the organization and my position could have

influenced the participation and candor of each participant. My participation may have influenced their expressed perceptions and skew the analysis. I attempted to minimize these potential biases by engaging in researcher reflexivity throughout the process. I frequently noted about potential conflicts, discomforts, and concerns, during the process and attempted to raise my level of sensitivity to them in order to be able to document them and engage in mid-course corrections if necessary. For example, I noticed that Amber was less forthcoming with her analysis than some of the other participants. She spoke tentatively, saying, "I don't know," to qualify her an answers, and asked me what I thought often. Rather than assuming she was "giving all she had," I intentionally slowed the process with her. I brought in food, and we socialized throughout the process to increase her comfort. I also shared some of the thoughts from the other participants to illustrate the level of candor she could use. As the sessions continued, Amber became more apt to give unfiltered responses and insights. She became willing to reframe my interpretation of her responses and corrected me on several occasions, which I interpreted as her increased comfort in participating openly and fully in the analysis process.

Working at the agency for more than 15 years may have served as a hindrance to my openness to possibilities. Influences on the emerging theoretical concepts may have been overlooked because they seemed commonplace or insignificant to the researcher who has experienced them day in and day out for extended periods of time. What may be unusual in the field of study may seem common for the researcher and therefore not noticed as important. Careful reading of the participant's journals, reflexivity through memoing, and collaborative analytical discussions likely contributed to minimizing the encroachment of my biases. In addition, the inclusion of the participants in the process of analyzing and

categorizing may have illuminated aspects of the data that would have otherwise been overshadowed by my own experiences. Careful listening and consideration by all participants in the research process as well as establishing rules for participation to ensure that all ideas were considered and documented ensured that nuances and seemingly unsalient details were considered multiple times for their potential influence on the emerging theory. Despite my best efforts to minimize my unconscious influences, I also acknowledge that as with all qualitative research, completely eliminating research bias is impossible and to some degree, at least, my biases have influenced the results of this study. At the heart, workplace research is also action research and bias can also be framed as important insider knowledge that can and should contribute to the data.

Financial and social hardship. Since participants' reflections on their orientation experiences and experiences with their colleagues and respective coaches have been analyzed and are being submitted for publication the possibility of unflattering comments to become public exists. Although colleague and participant identities were not disclosed in the study, within the organization the identities of the four participants is common knowledge since they are the only new employees during the period of data collection who engaged in an orientation process. Unflattering descriptions of interactions with colleagues or with the orientation process could be perceived to have a negative social impact on participants' working relationships with their colleagues. Participants may have held back from illuminating significant interaction from their peers for fear of social repercussions or may withhold information about their impressions of the process to avoid alienating me or the agency administrators. Likewise, participants could have potentially exaggerated the positive influences of their experiences in order to please me or program administrators.

In an effort to give credit to the participants as co-researcher, I offered participants the opportunity to be listed as co-authors of the manuscript that appears as Chapter 5 in this dissertation. Participants enthusiastically agreed to participate as co-authors and waived confidentiality. Their identities and roles within the study will be disclosed if the paper is accepted for publication. Since this offer was made after data analysis was complete, the waiver of confidentiality did not likely affect their candor and/or full participation in data analysis. It is possible, however, that participants may experience negative consequences from their peers or others in the field when their data and analysis are widely disseminated

Perceptions of non-voluntary. Due to my position within the organization and the support the organizational administrators have expressed about the project, it is possible that participants may have perceived that their participation in the project was not voluntary. Some participants may have agreed to participate because they felt that participation was expected. In order to overcome this potential perception, I discussed the voluntary nature of the study with each participant during the consent process and it is outlined on the consent form. I was also mindful of verbal and non-verbal cues participants may have been giving me about the inconvenience of participating. For example, one participant commented one day that she almost forgot about our meeting because she was so busy getting caught up on paperwork. I kindly reassured her that if she decided that she no longer had time to participate, she could stop at any time without repercussions and without harming the study. Even with my reassurance, no participants opted out prior to the completion of the study.

Hardship of time. The study design required a significant commitment of time and energy from the participants beyond using their extant data from their respective induction process. Each participant met with me for about two to three hours each week for at least

eight weeks (some met 12 weeks) in order to analyze, produce, and theorize about their own data. In addition, the participants and I met together for two hours in order to discuss and continue theorizing about the data collectively. Participants were told about this time commitment during the consent process. Participants were given paid work time to engage in the research activities so that they would not have to use personal time, however participating in the research activities did make it harder for participants to complete all their other work and caused at least a small level of additional stress.

Clearly articulating the expectation and protections of the participants in the informed consent form, engaging in reflexivity at every step, and attuning myself to the nuances of interpersonal dynamics, body language, and differences among participants minimized the impact of my relationship to the participants. Ultimately, regardless of what precautions are taken, the researcher must be attuned to and forthright about the expected and unexpected complications that arise when studying the experiences of colleagues at work and document them so that they can be used by the reader to inform the validity of the findings.

Validity

In qualitative research validity is described as trustworthiness of the data analysis. Denzin and Lincoln (2008) describe measures that can be taken to promote internal and external validity, including reflexivity, documentation, theoretical sampling, negative case analysis, and transferability. Internal validity was addressed by involving participants and triangulating their analysis with the analysis I captured in my memos. Agreement is a sign of internal validity (Creswell, 2007). External validity addresses reliability and generalization, or the extent to which the development of the grounded theory can be applied to other cases (Bickman & Rog, 2008). External validity cannot be established is this study. Future studies

can further refine the draft theoretical framework and solicit expert feedback and additional qualitative studies that use the proposed findings as an apriori framework for analyzing new cases of novice practitioner induction. Below I describe how I used reflexivity, documentation, theoretical sampling, and notions of transferability to ensure internal and external validity.

Reflexivity. A major threat to validity can be the researcher's effect on the study (Bickman & Rog, 2008). The researcher's effect can be mediated by reflexivity, or a continuous awareness of the self in relation to the participants, the data, and the researcher's past experiences and expectations for the study throughout all stages of the research process. In this grounded theory study, data collection and analysis occurred simultaneously, and I engaged in extensive memoing wherein theorizing and reflecting occurred regularly. As the instrument of analysis, grounded theory researchers must calibrate themselves to being able to provide informed analysis without infiltrating the data (Charmaz, 2006). Reflecting on my role, perceived influence, questions, suspicions, confusions, and assumptions during the memoing process helped ensure a level of reflexivity that hopefully minimized my unintentional infiltration of the grounded theory research process.

Documentation. Studies that have been meticulously documented can be carefully reviewed for internal validity and are more likely to be able to be replicated and generalized to other groups for external validity (Bickman & Rog, 2008). I thoroughly documented the steps and decisions I made throughout the study and reviewed and reported on those decisions and methods in the pages of this dissertation.

Theoretical sampling. Theoretical sampling is the process of sampling new data and comparing them to the existing categories to determine if any new categories are warranted

(Charmaz, 2014). Typically, theoretical sampling occurs until no new categories emerge and the researcher can be certain that he/she has reached a point of saturation. We analyzed all data segments identified by the participants as "significant" to their learning and analyzed all interview/discussion data even after saturation had occurred. I also conduct random sampling of non-significant data to look for additional themes or ideas that had not been represented in the significant data. The non-significant data did not further explicate any of the theoretical concepts already identified, however, it should be noted that a thorough grounded theory analysis of the non-significant data will likely tell an important story about experiences, interactions, and activities that novice practitioners do not find helpful. Additional studies, or expansion of the existing study to include more cases and fully analyzing the units of data perceived as not important may help refine or nuance the proposed model.

Transferability. Transferability refers to the ability for the findings, the emerging theory, to be generalized to other populations. At face value, a study designed to illuminate the experiences of early intervention practitioners engaging in an induction process is at least transferrable to other early intervention programs across the state or country. Wide-scale transferability was not the intention of this small study. A larger study capitalizing on these findings can include novice practitioner cohorts from other organizations, across more disciplines can result in findings that are more widely transferrable.

Summary of Chapter

This chapter provided a rationale for how a case study methodology with constructivist grounded theory methods and participatory strategies are well-suited to inform the early intervention field about how knowledge, practice, and subject positions are constructed by novice practitioners. Collaborative grounded theory case study proposes a

unique perspective on considering the experiences, reflections, and perceptions of early intervention practitioners engaging in professional induction experience. Using a case study approach allowed the thick, rich stories of the novice practitioners to be foregrounded, while the grounded theory methods provided a way of systematically understand the world as experienced and perceived by the practitioners. Collaborating with participants during data collection and analysis expanded the possibilities of what the field can come to know about novice practitioners' process of producing competence and confidence during the induction process. Employing these three research strategies ensured that the study is epistemologically and methodologically congruent.

The chapters that follow present the findings as two publication-ready papers, providing a concise qualitative analysis of both the induction process and the experiences and perceptions of the participants. The illustrative case study (Chapter 4) provides an in-depth analysis of the professional induction phenomenon as traversed by the participants. The grounded theory analysis (Chapter 5) illuminates patterns and trends across novice practitioners to produce generalizable knowledge in the form of a theoretical framework about how practitioners experience job-embedded learning and peer coaching.

The theoretical concepts generated by this study have meaningful implications for future professional development opportunities offered within an organization as well as for designing future studies that capitalize on these findings. The descriptions of participants' journeys, perceptions, and positionality produced as a part of this study are noticeably lacking in the field and, thusly, this study serves to help professionals and organizations understand more about the characteristics of professional development activities that lead to the uptake and utilization of evidence-based practices. The pragmatic research design

described fills several gaps in existing methodological approaches identified in a review of the early childhood special education literature. This collaborative grounded theory case study has the potential provide an example of participatory research not commonly represented in early intervention or early childhood special education.

Chapter 4: Early Childhood Intervention Induction: A Lesson in Experiential Workplace Learning

Overview

Chapter 4 is presented as a manuscript intended for publication in a peer-reviewed journal with practitioners and administrators as the target audience. Practitioners and administrators positioned with responsibility for providing orientation and processional development are expected to be particularly interested in this article. Providing high quality-early intervention services requires that leaders establish and maintain the conditions that enable novice practitioners to efficiently learn and adopt evidence-based practices as they were designed to be implemented. Workplaces are learning environments for practitioners, and leaders can mobilize organizational resources to intentionally facilitate workplace learning and narrow the research-to-practice gap. This paper describes the use of an experiential workplace learning professional induction process with four novice practitioners. The real-life application coupled experiential workplace learning with peer coaching and demonstrates the feasibility and efficiency of using experiential workplace learning and peer coach as an orientation strategy for early intervention practitioners.

Introduction

Within the field of early childhood special education in America, states and programs are challenged by how to ensure practitioners who work with infants and toddlers and their families (i.e., special educators, speech-language pathologists, physical therapists, and occupational therapists) use evidence-based (i.e., research-based) early intervention (EI) practices (Bruder, 2016; Bruder & Dunst, 2005; Chang, Early, & Winton, 2005; Snyder, Hemmeter, & McLaughlin, 2011). Since early intervention (early childhood special education for infants and toddlers) is such a small subset of what special educators and allied health professionals do, preservice programs spend little time preparing practitioners for *how* to implement their craft in the context of services to infants and toddlers and their families (Bruder, 2016; Bruder & Dunst, 2005; Chang, Early, & Winton, 2005; Dunst, Hamby, Howse, Wilkie & Annas, 2019; Ray, Bowman, & Robbins, 2006; Snyder, Hemmeter, & McLaughlin, 2011), which is significantly different from providing school-based, clinic-based, and rehabilitative services to older children and adults (Bruder, 2016; Hanson & Bruder, 2001; Winton, McCollum, & Catlett, 1997).

Pre-service preparation programs for practitioners tend to focus instruction on discipline-specific knowledge and expertise needed to work across the lifespan and attend little to the pedagogy of providing services to infants and toddlers in their homes and community settings (Bruder, 2016; Bruder, Mogro-Wilson, Stayton, & Dietrich, 2009). Pedagogy is described as "…the instructional techniques and strategies that allow learning to take place. It refers to the interactive process between practitioner and learner… and includes aspects of the learning environment" (Siraj-Blatchfod, Sylva, Muttock, Gilden & Bell, 2002, p. 10). Pedagogy within the context of early intervention refers to the skills and practices a

practitioner needs in order to facilitate the learning of both the child enrolled in EI as well as the family members and other caregivers (i.e., family-centered practices, natural learning environment practices, coaching interaction style, teaming practices etc.). Individual programs and state EI systems are therefore largely responsible for providing the training and support needed to prepare practitioners to implement pedagogically sound services within an evidence-based framework.

Early intervention programs often depend upon workplace learning opportunities to increase practitioners' knowledge, skills, and abilities with regard to becoming current with evidence-based practices. In fact, a well-planned orientation process serves as an implementation driver of evidence-based pedagogical practices (Fixsen, Blase, Naoom, & Duda, 2015). Given the chronic under preparedness of practitioners entering the EI field (Broekkamp & van Hout-Wolters, 2007; Vanderlinde & van Braak, 2013), it is particularly important to understand how practitioners can benefit from experiential workplace learning to understand their roles and responsibilities as well as become competent using the evidence-based practices that make up EI work.

The purpose of this paper is to describe the framework for experiential workplace learning (EWL) and discuss how it was applied to a small early childhood intervention program's professional induction process for four novice practitioners. When paired with peer coaching, EWL was an efficient method for ensuring the uptake and use of evidence-based EI pedagogical practices by novice practitioners. The sections that follow describe the principles of experiential workplace learning opportunities and how they were implemented by an EI program to onboard a small group of novice practitioners.

Experiential Workplace Learning

Workplace learning is generally characterized as taking place through either formal or informal channels. Formal learning in the workplace happens through organized, curriculum-based training programs or through informal learning activities that contribute to the organizational effectiveness and the learning and development needs of the individuals (Manuti et al., 2015). Some estimate that 75% (Bancheva & Ivanova, 2015) to 90 % (Cerasoli, Alliger, Donsbach, Mathieu, Tannenbaum & Orvis, 2017) of workplace learning is informal. Sambrook (2005) distinguished between *learning at work* and *learning in work*, where the former refers to formal learning workplaces provide through inservice workshops and online learning, and the latter refers to informal job-based learning experiences. Strong institutional leaders can capitalize on the natural learning opportunities afforded to novice practitioners during the course of their work to create a climate in which practitioners feel a sense of belonging and want to support the organization's mission and goals and the conditions that enable practitioners to attain knowledge, skills, and utilization competence. The experiential workplace learning induction process outlined here describes one way EI leaders can bridge the research-to-practice gap by developing and implementing an evidence-based professional development approach that provides practitioners with the supports needed to ensure they have the knowledge and skills to fully implement evidence-based pedagogical practices.

Defining Experiential Learning in Early Intervention

The EWL process used to orient novice practitioners was rooted in the work of Kolb (1984, 2015), Dewey (1938), Piaget (Piaget & Inhelder, 1969), and Vygotsky (1980). Although experiential learning can occur in diverse settings, some contextual (i.e., on the job

learning, see Dernova, 2015; Fenwick, 2008; Manuti, Pastore, Scardigno, & Giancaspro, 2015; McRae, 2015) and some decontextualized (e.g.,, learning games, simulations, role play etc.). This paper describes the experiential learning that occurs in the workplace as a practitioner is performing the work of EI (home and community visits, related paperwork, meetings etc.) and is referred to here as *experiential workplace learning*. Bierema and Eraut (2004) note that "…very often learning and working occur at the same time and sometimes, as in problem solving, they are identical." (p. 55). EWL prioritizes learning through the problem-solving that occurs as practitioners are faced with real-life interactions and must use the right practices, at the right time, in the right measure to maximize the impact for children and families.

Although no agreed upon definition exits, EWL is often defined as a method for actively engaging the learner in a contextual learning process (Fenwick, 2000). Boud, Cohen, and Walker (1993) identify principles of experiential learning that are generative and well-suited for workplace learning, including:

- Learners participate in practical experiences that are carefully selected and supported by reflection.
- Learners engage intellectually, emotionally, socially, and physically in authentic tasks.
- Learners investigate personal assumptions and values.
- Learners learn from successes and setbacks as they naturally occur.

Within this paper, EWL is defined as semi-formal and informal contextualized professional learning that occurs during the experience of performing one's work duties and reflection upon work activities for the purpose of improving work-based outcomes. Key to the

proposed definition is that the learner is conducting the work through which learning is occurring and is engaging in reflection of that work and using the reflections to plan for continuous improvement as measured by the outcomes of the work (Boud et al., 1993; Fenwick, 2008; Lundgren et al., 2017; Trede, Sutton, & Bermoth, 2016).

Operationalizing Experiential Workplace Learning in Early Intervention

This paper examines the iterative work of leaders at an EI program in the South East United States, to streamline a practitioner orientation process in a effort to stem tide of staff turnover, monitor outcomes, and promote practitioner fidelity to pedagogical practices. The small program employed a team of 13 direct service practitioners (two occupational therapists, one physical therapist, three speech-language pathologists, three educators, three nurses, and a nutritionist) and served about 160 families in a four-county area at any given time. Three of the direct service practitioners also performed supervisory and/or administrative functions for the team and therefore carried a reduced caseload.

Like many programs, developing and maintaining a highly-qualified workforce had been somewhat elusive. Program administrators were committed to holding high standards of practice linked by research to outcomes for children and families, and practitioners within the organization felt the pressure to align with research-based practices. That pressure can become overwhelming when the supports needed to promote alignment are not fully present or when it takes too long for practitioners within the organization to become confident and competent with evidence-based practices. Formal observation data from the program revealed that it often took a year or more for practitioners in the orientation phase to reach fidelity to evidence-based pedagogical practices and for some practitioners took up to three years. Although the program was conscientious about providing regular and individualized

professional development in the form of in-service workshops and supervisory coaching, moving the entire 13-member team to fidelity with the limited resources of a small agency was a challenge. Over the years, administrators lost potentially good practitioners to turnover resulting in expended time, energy, and financial resources needed to hire and onboard new personnel.

After nearly two decades of using and reinventing an orientation process for onboarding new practitioners, in 2016 program leaders developed and employed an experiential workplace learning model paired with peer coaching. The program used the new orientation model for a group of four practitioners who joined the agency between 2016 and 2018 (see Table 1). Two of the practitioners engaged in orientation at the same time and two were inducted later with a short period of overlap. Only one of the participants had had any prior experience working in EI; two of the participants were straight out of their preservice programs. Although four practitioners represent a small sample from which to generalize findings, it represents almost a quarter of the direct service positions at this agency. The process and organizational resources used can likely be scaled and therefore the lessons learned can be relevant and perhaps instructional for larger programs as well. The new EWL-based orientation model was found to be an efficient and effective method of orienting these four novice practitioners to evidence-based practices

Table 1.

Summary Demographic Information for EWL Induction Participants

Start Date	Discipline	Level of Ed.	Years of Exp.	Years of Exp. EI	Race/ Sex	Duration of Formal Orientation
6/20/16	Speech Language Pathologist 1	MA	12	2	White/ Female	80 days
7/20/16	Physical Therapist	DPT	0	0	White/ Female	72 days
12/4/17	Early Childhood Educator	BS	0	0	White/ Female	170 days
7/2/18	Speech Language Pathologist 1	MA	3	0	White/ Female	76 days

As part of the new orientation process practitioners were introduced to their peer coaches during their first day at work. The peer coaches were selected based on their own ability to demonstrate high levels of fidelity to evidence-based pedagogical practices. They had been prepared for their role by attending a two-day training on the use of evidence-based coaching characteristics (as described by Rush & Shelden, 2020) and received follow-up coaching from a certified early intervention fidelity coaches for six months as they refined their skills at supporting early childhood colleagues' use of EI practices. Coaches were introduced to the tenants of EWL prior to the start of the induction process, and the coaches and the novice practitioners were introduced again on the practitioners' first day of work so that both would know what to expect from one another. Coaches were instructed to promote the participation of the practitioners during real EI visits, meetings, and administrative tasks, and if needed, err on the side of active participation of the practitioner.

The novice EI practitioners were in the field observing colleagues on the first day of their employment and most were implementing at least parts of a visit by their second or third day of work. Orientation coaches and novice practitioners decided together what the novice practitioner's role during EI visits would be and what level of support was needed from the coach. Coaches were instructed to assume the competence of the practitioner unless the practitioner indicated or the coach observed otherwise. When the practitioner requested help or the coach observed the practitioner needed help, the coach was to provide the smallest amount of scaffolding needed for the practitioner to be successful and for the visit to achieve the intended outcomes. Support provided by the coach included planning prior to the visit, in action supports (i.e., restraining from intervening, providing non-verbal prompts (signals), providing verbal prompts, asking the practitioner reflective questions or providing feedback during the visit, and jumping in to work shoulder to shoulder with the practitioner) and on action supports (i.e., reflection after the visit, role playing, literature reviews, seeking out colleagues with specific and diverse expertise to address curiosities that came about as part of the visit).

After each EI home visit, the coach prompted the novice practitioner to reflect on her observation and/or experience during a 10-20-minute conversation. During this reflection time, the aim was for novice practitioners to build a mental model for the target research-based practices, connect the observations to past experiences and existing knowledge of how adults and children learn, and visualize how they would implement the practices in similar or varied situations in the future. In addition to prompting reflection, orientation coaches also provided research-based information and feedback to the practitioners in response to the practitioner's observation, reflection, or curiosities. The experiences served as a catalyst for

practitioner curiosity which prompted literature searches, collegial conversations, and self-motivated investigations for new knowledge.

Much like a preceptorship model common to nursing induction (Kaviani & Stillwell, 2000; Rogan, 2009; Smedley, 2008; Trede et al., 2016), the EWL process in place here set out to systemize the informal learning opportunities afforded practitioners in the EI workplace. Preceptorship describes a type of workplace learning that traverses the space between formal and informal learning. Preceptorship is a short-term, one-to-one relationship (Kaviani & Stillwell, 2000) in which seasoned professional nurses facilitate students' formation in professional roles in "complex workplace cultures" (Smedley, 2008; Trede et al., 2016, p. 273). Preceptorship takes contextualized on-the-job learning opportunities and provides a structured support system (a coach) to promote and ensure learning occurs at a level commensurate with the needs of the nursing program. Boud and colleagues (1993) argue that the person who might normally be expected by organizations to foster learning in the workplace—the supervisor—may be unable to do so effectively because of structural role constraints. Hughes (2002) suggests that staff may not trust supervisors to facilitate learning because of supervisors' formal role in evaluating staff and the need for individuals to portray themselves as competent and confident. Peer coaches can be seen as an advantage because of their similar roles, their accessibility, and their perceived relatable experiences.

Overall, the use of EWL within the orientation process capitalized on the intense experiential learning that occurs in job-embedded activities (Kolb, 2015; O'Bannon & McFadden, 2008). Evaluation of other professional development interventions have suggested that effective professional development is intense, sustained, job-embedded, and focused on relevant subject matter (Bruder, 2016; Desimone, 2009, 2011; Dunst & Trivette,

2009; Dunst, Trivette, & Hamby, 2010; Trivette, Dunst, Hamby & O'Herin, 2009; Yoon, Duncan, Lee, Scarloss, & Shapley, 2007). The new EWL induction process leveraged these evidence-based professional development interventions early in the new practitioners' tenure to maximize their capabilities over time.

Outcomes of the Experiential Workplace Learning Process

Experiential workplace learning paired with peer coaching streamlined the professional induction process for new practitioners and decreased the amount of time it took practitioners to reach fidelity to evidence-based practices and maximized organizational resources. EWL paired with peer coaching was also cost-effective in the long run and was perceived positively by the practitioners who engaged in the process.

Fidelity to Evidence-Based Practices

Practitioner fidelity to pedagogical practices was measured using an observation tool aligned with the research-based indicators of the target EI practices (natural learning environment practices, family-centered practices, capacity-building coaching interaction style, and teaming practices). When practitioners independently lead visits where 21 of the 24 indicators were observed on each of the three visits and all indicators were observed at least once over the course of all three visits, practitioners were considered to have fidelity to the practices. The practitioners participating in EWL reached fidelity to the EI practices quickly (about 75 days, with the exception of one), besting previous orientation periods by more than a year as tracked by systematic observations.

When innovations and practices are implemented as developers intended, practices are said to be implemented with fidelity and innovation outcomes associated with the practices are likely to be achieved (Fixsen, Blasé, Naoom, & Duda, 2015). The EWL

induction process provided the implementation infrastructure (Metz & Bartley, 2012) necessary to support practitioner fidelity to EI practices. Experiential workplace learning paired with peer coaching appears to have been an enabler of effective implementation by novice practitioners (Fixsen, Blasé, Naoom, & Duda, 2015). Experiential learning provided ample opportunities practitioners needed to practice and refine their skills and abilities and the peer coaching provided practitioners with the scaffolding needed to successfully advance their thinking, planning, and implementation of the practices.

The peer coaching also provided ample opportunities for practitioners to reflect and receive feedback on their experiential learning opportunities and refine their practices. Rush and Shelden (2011) note, "Reflection is the coachee's review and analysis of what he or she already knows or is doing to determine what modification or new knowledge and/or skills the coachee needs in order to achieve the desired outcome in both the current situation and the future" (p. 65). The practitioner reflections are often prompted by the coach's use of open-ended questions designed to raise the practitioner's *awareness*, promote *analysis*, generate *alternatives*, and prompt *action* plans. The repetitiveness of the coaching conversations provided a structure for reflecting that can be internalized by novice practitioners.

Time and Retention

The experiences of the novice practitioners participating in an experiential learning professional induction process can be instructional for programs struggling with the most effective and efficient way to leverage valuable resources to improve practitioner performance. States and programs are responsible for establishing the conditions that are essential for the successful implementation of evidence-based EI practices and the conditions can sometimes be costly (Cook & Cook, 2013; Fixsen et al., 2015; Metz & Bartley, 2012).

The induction process required an investment of time and human capital in both training the peer coaches and allowing the peer coaches the time to train and support the work of the novice practitioners (Table 2).

The agency's investment was minimal compared to the return gained in qualified program staff. During the induction period, peer coaches continued to work as early interventionists themselves. During the beginning of the process the novice practitioner accompanied the peer coach on the peer coach's visits, at first observing (Observation stage) then taking on a role (Practicing stage) during the visit. As the novice practitioner gained confidence and competence she began to be assigned as the primary service provider of families and the coaches shadowed her as she took on the lead role in providing the intervention (Independent Practicing stage). During this transition, care was taken to ensure that peer coaches were not assigned new referrals since much of their time was spent shadowing and debriefing with the novice practitioners. After about two months, novice practitioners managed their caseloads independently and used their peer coaches to support refinement of their skills or to navigate unusual situations (Synthesizing stage)

When first getting independent case load assignments, novice practitioners were observed multiple times per week. The transitions during the process were based on the increasing levels of competence and confidence demonstrated by the novice practitioner and were informally negotiated week by week throughout the process. Within a month, peer coaches were shadowing novice practitioners one to three times per week. Within two months, peer coaches were shadowing novice practitioners a few times a month, and within three months, peer coaches were shadowing novice practitioners only once per month.

Novice practitioners were able to begin billing for their services once they began serving families on their own caseload.

Table 2.

Timeline for Implementing EWL and Accommodations Provided to Ensure Novice Practitioner Success

Stage	Time and Duration	Novice Practitioner's Role	Coach's role	Organizational Accommodations
Observing	Began on orientation day 1 (lasted for 1-2 days)	• Observe coach and colleagues (4-6 visits). • Describe the practices. • Compare practices to the evidence-based standard.	• Serve as a model for evidence-based practices. • Reflect with the practitioner prior to and after each visit.	• Peer coach workload was scaled back to 10-14 visit per week to make time for additional coaching conversations.
Practicing	Began on orientation day 3 (lasted 2 weeks to a month)	• Plan EI visits with peer coach. • Implement parts of EI visits from coach's caseload. • Observe colleagues. • Role play with peer coach and practitioners.	• Provide shoulder-to-shoulder support during all visits, intervening when needed. • Debrief with practitioner after each visit. • Scale support to match practitioner confidence and competence.	• Maintain a reduced peer coach caseload of 10-14 visits per week. • Allow for other colleagues to provide support to novice practitioner as needed.
Independent Practicing	Began on orientation day 30 (lasted about a month)	• Begin to receive referral assignments; • Plan EI visits with peer coach. • Implement all or substantial portions of each visit. • Bill for services when applicable.	• Observe/support practitioner on at least half of the practitioner's weekly visits. • Plan and debrief visits with practitioner.	• Maintain a lower peer coach caseload of 8-10 visits per week (own caseload). • Peer coach attends 4-6 visits per week (novice practitioner's caseload).

Synthesizing Practices	Began on orientation day 60 (lasted about a month)	• Provide services to families. independently. • Seek out support from the coach when needed.	• Observe/support practitioner by planning and debriefing several visits per week as needed. • Observe practitioner one time per week.	• Resumes regular caseload responsibilities.
Refining	Beyond orientation day 90	• Provide services to families independently. • Maintain a full caseload.	• Available to practitioner as needed. • Conduct a monthly observation of practitioner.	• Ensure novice practitioner receives monthly observations.

Providing a peer coach for a novice practitioner for two to four months while the practitioner mastered utilization of evidence-based practices was resource-intensive. However, when compared to the cost of providing in-service training, conferences, high turn-over, and diluted outcomes for children and families, the cost may be worth the benefit. Agencies have been known to allocate extensive resources into professional development initiatives that yield modest results. For example, Campbell and Sawyer (2007) describe a professional development study in which 147 providers were trained on the use of participatory practices and the use of natural materials and the collaborative role of the caregiver and the provider during the home visit. After measuring participant home visiting practices, the researchers found that 43% of the practitioners were still using traditional, non-evidence-based practices, even after having completed the training. Taking an intense, sustained, job embedded, and focused approach to induction, such as EWL, is likely to have stronger outcomes for practitioners (Bruder, 2016; Desimone, 2009, 2011; Dunst & Trivette, 2009; Yoon et al., 2007) and translate to better outcomes for children and families (Cook & Cook, 2013; Fixsen et al., 2015; Metz & Bartley, 2012).

Experiential learning at work is "positively correlated with flexibility, employability, adaptability of learning in context, rapid transfer to practice, and resolution of work-related problems through regular review of work practices and performance" (Manuti et al., p. 5). EWL has also been shown to increase tenure by providing strong personnel development (Engestrom, 2001; Knouse, Tanner, & Harries, 1999; Murakami, Murry, Sims, & Chedzey, 2009). University students who engaged in workplace learning were found to be more able to articulate their knowledge and perform better than those who learned using different approaches (Crawford & Wang, 2016; Mendez & Rona, 2010; O'Donovan, 2018). Although time consuming over the short-term, experiential learning at work is associated with acceleration of implementation, potentially saving time and financial resources by readying an EI team more quickly and retaining them for longer.

Positive Experience for Participants

Practitioners were interviewed individually about their experiences with participating the EWL process six months after the process ended. The interview data were coded and several themes regarding the helpfulness of the EWL process emerged. First, practitioners overwhelmingly agreed that on-demand access to a coach who worked alongside them was helpful. Second, participants agreed that the learning opportunities that were highly experiential were more valuable to their learning. Third, practitioners discussed the helpfulness of opportunities that increased the breadth and depth of their knowledge and skills as well as the activities that allowed them to demonstrate their existing competencies with high degrees of confidence.

On-demand coaching. The infrastructure of the organization allowed novice practitioners ongoing and as-needed access to their assigned coaches, as well as to their

colleagues who often served as “temporary coaches” stepping in to help novice practitioners navigate an interaction or situation when needed or requested by the coach (e.g.,, assigned coach was unavailable or lacked a specific expertise requested by the practitioner). Overwhelmingly, the novice practitioners found the on-demand availability of their coaches helpful. All four practitioners mentioned unplanned conversations with their coaches and used phrases like, “thank goodness my coach was there.” Practitioners shared positive feedback about the varying levels of intensity of support that was provided during the coaching interactions. Other studies have also noted the significance of on-demand coach availability (Knoche, Kuhn, & Eum, 2013). Unlike programs that hire consultant coaches, during the EWL induction process, peer coaches worked side-by-side and shoulder-to-shoulder with practitioners. The close working relationship allowed for a strong capacity-building ‘helpgiving’ relationship and ensured that time spent floundering was minimized. Novice practitioners talked about “letting down their guard” and “letting their coach in.” Since coaches worked with novice practitioners on a daily basis, they were knowledgeable of practitioners’ strengths and struggles and were positioned to be responsive with appropriate doses of information, reflective questions, and encouragement, and could recommend additional experiential opportunities to meet the practitioner’s immediate needs .These characteristics have also been associated with successful coaching (see Rush & Shelden, 2020).

Experiential opportunities. Practitioners also responded positively to the experiential learning opportunities they were afforded. When asked about the significant experiences that marked their orientation process, practitioners overwhelmingly selected opportunities that were highly experiential and/or resulted in deep levels of reflection. Highly

experiential activities included those where the practitioner was taking the lead in performing her role as an EI practitioner either with or without the direct support of the coach. They were also frequently paired with multiple opportunities to reflect, both with a coach or colleague.

Practicing new and existing competencies. Novice practitioners also distinguished between the helpfulness of experiential activities that prompted new learning and experiential activities that allowed them to use their existing knowledge and skills. Both were described as significant to their professional learning and their adoption of a professional identity. While new learning provided opportunities for practitioners to stretch their comfort zone and expand their knowledge and skills, doing so was stressful and tiring. Opportunities to practice existing competencies allowed novice practitioners to confidently identify as part of the team, not as a learner. As one participant eloquently shared, "Providing my expertise to a colleague felt good. I felt like a valued equal. It was refreshing to take a break from learning mode and know that I am a resource to my coworkers."

Future Directions

Although research supports the use of experiential learning and peer coaching as successful professional development methods (Dunst et al., 2019; Ingersoll & Strong, 2011; Smedley, 2008; Trede et al., 2016), the potential of these evidence-based professional development practices has not fully been realized in the field of EI, especially when it comes to practitioner induction to evidence-based pedagogical early intervention practices. Evaluation of experiential workplace learning designs are needed to fully investigate the potential and realized implications of the model. Other fields and disciplines can inform EI professional development on the power and potential of experiential workplace learning

specifically. In addition, larger scale studies are needed to explicate the key conditions and associated benefits of workplace learning within the context of EI.

Conclusion

Experiential workplace learning paired with peer coaching is an effective and feasible model for providing EI induction. Unlike other forms of systematic and ongoing professional development, the EWL model described here accelerated the learning process and provided systematic assurance through observations and interactions with qualified peer coaches that novice practitioners were using, and families were receiving, evidence-based practices. The induction model used here demonstrates how EWL can be operationalized within the context of an early intervention program with sufficient systems and supports. EWL assures that learning occurs in context, making it more likely that the learning will be generalized to other real settings and situations, and allows practitioners to learn from the varied and real-life situations that frequent the field of early intervention. Using EWL moves beyond learning about the practices and affords the opportunity to learn to be a practitioner.

Chapter 5: An Inductive Study of Experiential Learning and Peer Coaching

Overview

This chapter is presented as a manuscript written with administrators and researchers as the intended audience. This manuscript presents a collaborative inductive case study using constructivist grounded theory methods. The purpose of this study was to explore the professional induction experiences of four novice early intervention practitioners who participated in an experiential learning process facilitated by peer coaches. This case study used grounded theory methods to construct a theoretical framework for experiential workplace learning in early intervention as perceived by the participant practitioners. The study was approached from a constructivists worldview and presents a new framework for considering the adult learning process within the context of workplace experiential learning. Data included practitioner orientation journals and practitioner interviews. Subjects participated in the coding and analysis of their own data.

As collaborators in the analysis and subsequent theorizing processes, the participants are included as authors on this manuscript and so the voice of this manuscript uses the first-person plural, "we." In a study that focused on raising the under-represented voices of professional development participants, providing an opportunity for collaboration at the level that constitutes co-authorship, seemed an ethical and necessary decision. Co-authorship allowed their stories to not only be told, but to be authored, critically analyzed, and used to collectively produced a framework for workplace learning.

Introduction

The extent to which early intervention practitioners (i.e., therapists, educators, and service coordinators) possess the knowledge and skills to effectively work with young children and their families has been a focus of investigation for more than three decades (e.g.,, Bailey, Simeonsson, Yoder, & Huntington, 1990; Bruder & Dunst, 2005; Bruder, 2016; Hutinger, 1981; Miller & Stayton, 2000; Stile & Pettibone, 1981; Winton et al., 1997). Practitioner effectiveness translates to increased positive outcomes for children and families served by early intervention programs (Cook & Cook, 2013; Fixsen et al., 2015; Metz & Bartley, 2012). Decades of research has established that highly skilled practitioners exhibit both competence and confidence in the knowledge and skills of applying their discipline and also with the evidence-based pedagogical practices associated with early intervention (i.e., natural learning environment practices, family-centered practices, resource-based intervention practices, and capacity-building interaction styles such as coaching) (Dunst, Bruder, Trivette, & Hamby, 2006; Espe-Sherwindt, 2008; Dunst, Hamby, & Brookfield, 2007; Rush & Shelden, 2020; Trivette, Dunst, & Hamby, 2010).

Although early intervention practitioners learn the knowledge and skills needed to employ their expertise across the lifespan in their preservice programs, these programs spend little if any time instructing future practitioners on pedagogical practices associated with early intervention (Bruder, 2016; Snyder, Hemmeter, & McLaughlin, 2011). Early intervention *induction* refers to the process of orienting and training new practitioners to become competent and confident in their use of the research-based pedagogical practices within the context of the agency in which they will be working. Since novice practitioners can be particularly unfamiliar with how to apply their skilled interventions in the context of a family's home or in ways that intentionally build the capacity of family members to use

responsive interventions between visits, the induction process can take several months to a year or longer to reach practitioner proficiency (Fixsen, Blase, Duda, Naoom, & Van Dyke, 2010). Given the amount of organizational resources that are needed to support a lengthy induction process, studying and understand the experiences of practitioners as they navigate and make use of the induction process in an effort to streamline it seems particularly important.

A group of four novice practitioners employed by a small early intervention agency completed an induction process characterized by experiential workplace learning (Bierema & Eraut, 2004; Dernova, 2015; Fenwick, 2008; McRae, 2015; Manuti, Pastore, Scardigno, & Giancaspro, 2015) and mediated by peer coaching (Rush & Shelden, 2020). Experiential learning is rooted in the work of Kolb (1984, 2015), Dewey (1938), Piaget (Piaget & Inhelder, 1969), and Vygotsky (1980). The participants kept a written record (journal) of their experiences in the field and their interactions with their peer coaches allowing for an insider's perspective on how the learning opportunities were used to develop competence (the skills needed to produce intended outcomes) and confidence (the belief in their ability to implement the target intervention and achieve the intended outcome). Because of their unique position within the induction process and as data collectors (their journals), the four participants were enlisted as researchers and coauthors of the findings that were borne from their experiences, perceptions, and insights.

An abundance of literature within early intervention and across early childhood education focuses on the outcomes of professional development experiences with respect to the learner's increased knowledge, skills, and utilization of target practices (e.g.,, Childress, Raver, Michalek, & Wilson, 2013; Dunst, Trivette, & Hamby, 2010; Ingersoll & Strong,

2011). Investigating *how* or *why* practitioners arrive at positions of competence and confidence, however, is strikingly understudied. Knowing *how* practitioners make meaning from their experiences may help us develop and institute more effective professional development and induction experiences that support practitioner competency more efficiently.

The aim of this grounded theory case study is to use inductive methods to construct theoretical concepts that can inform the development of a new or revision of an existing theory or theoretical framework. Refining an existing framework or constructing new concepts that inform how we consider and use an existing framework is a substantial contribution to the field of education plagued with a 20 year research-to-practice gap (Broekkamp & van Hout-Wolters, 2007; Campbell & Halbert, 2002; Elmore, 2016; Mets & Bartley, 2012; Landry, Amara, & Lamari, 2001; Vanderlinde & van Braak, 2013). Inductive methods such as grounded theory provide the tools needed to systematically investigate the lived experiences of novice practitioners traversing their first months within the field of early intervention. Small case studies focusing on practitioner perceptions and reflections can provide a platform for illuminating the conditions that breed practitioner confidence and competence (Eisenhardt & Graebner, 2007; Steenhuis & de Bruijn, 2006; Stiles, 2007).

Research Questions

This study addresses the research question 'How do novice early intervention practitioners perceive and make use of their professional induction experiences in constructing competence and confidence with the use of early intervention practices?' Competence refers to one's ability to perform and proficiently implement specified tasks or practices (Bruder, Dunst, & Mogro-Wilson, 2011) in this case, early intervention practices

(i.e., natural learning environment practices, family-centered practices, teaming practices, and a coaching interaction style). Confidence refers to the practitioner's positive self-efficacy attitudes and beliefs about her own ability to perform a skill that has not necessarily been previously demonstrated. According to Bandura (1977) arises from confidence that one has the knowledge, skills, and resources to be successful, derived from previous patterns of success.

Background

Though the field of early intervention has yet to develop a robust collection of research examining practitioners' informal workplace learning, hundreds of studies within early intervention and early childhood special education demonstrate relationships between adult learning professional development strategies and positive outcomes related to increased knowledge, skill, and utilization (see Charteris, Smardon, Foulkes & Bewley, 2017; Childress, Raver, Michalek, & Wilson, 2013; Cordingley, 2008; Desimone, 2009; Druckman & Bjork, 1994; Dunst & Trivette, 2009; Friedman, Woods, & Salisbury, 2012). Outside of early intervention and early childhood special education, the literature describes frameworks for adult learning within the context of informal and formal workplace professional development (see Billett, 2001; Engstrom, 2001; Eraut, 2004; Fenwick, 2009; Fuller & Unwin, 2004; Hager & Holand, 2006; Marsick & Watkins, 1990). To date, early intervention research has not capitalized on the experiential workplace learning literature to determine how novice practitioners might be efficiently inducted into the use of early intervention pedagogical practices. The field of early intervention can potentially narrow the implementation gap by marrying experiential workplace learning with existing professional development initiatives.

Novice practitioners enter the fold of early intervention in abundance, but the literature exploring how practitioners actually perceive, understand, and make sense of the professional development experiences afforded to them, in particular, their initial induction processes is limited. Ultimately, this limitation constrains the ability of organizations to design professional development and induction experiences that efficiently and effectively capitalize on participant learning preferences, organizational resources, and cross-discipline theories of learning, as well as address the research-to-practice gap previously referenced.

Expanding our base of knowledge regarding the learning experiences of new/novice early intervention practitioners offers the opportunity to develop a new theoretical framework for professional induction and subsequently enhance outcomes for children and families. Several gaps in the existing literature limit our ability to construct a revised theoretical framework specific to early intervention, including (1) lack of studies focusing on the lived experiences of participants involvement in early intervention induction, (2) overall lack of studies related to the induction process, (3) lack of studies linking the rich literature on workplace learning to the context of early intervention, and (4) absence of diverse methodologies to help us understand the multiple perspectives and conditions that impact the uptake of professional practices. The gaps identified in the professional development and induction literature as well as the opportunities to expand on methodologies in education (Bauml, 2011; Caudle & Moran, 2012; Correa et al., 2015) and workplace learning (McRae, 2015) were the impetus for this study.

Process of Inquiry

Situating the Research and Methodology

The current study is situated within a constructivist paradigm (Lincoln & Guba, 2013), and uses a case study methodology (Yin, 2014) supported by constructivist grounded theory (GT) methods (Charmaz, 2014; Charmaz & Thornberg, 2018). Traditionally, GT works with large numbers of participants (i.e, 25-30) (Charmaz, 2014; Thompson, 2011), however, GT analytical methods have also been used to develop theoretical concepts from small numbers of cases (Eisenhartdt, 1989; Eisenhardt & Graebner, 2007; Hughes & Jones, 2003). Combining case study methodology with GT methods has been employed in traditionally scientific fields of research such as healthcare, information technology, and information systems with success (see Dubois, & Gade, 2002; Eisenhardt, 1989; Eisenhardt & Graebner, 2007; Halaweh, Fidler, & McRobb, 2008). Hughes and Jones (2003), advocate that GT is consistent with interpretive case studies that investigate social and organizational contexts, and note that many researchers adopt GT case study methods in order to "focus on rigor and traceability in substantive theory development" (p. 3). Applying the systematic GT methods to the qualitative case study tradition promotes a theoretical analysis with the potential to advance or create models of learning that incorporate what can be illuminated from participant perceptions of their own experiences.

Constructivist grounded theory case study. GT methods were selected due to the lack of prior research on the topic of early intervention professional induction and the particular question of interest, (i.e., '*How* do novice early intervention practitioners perceive and make use of their professional induction experiences to construct competence and confidence in their work?'). Charmaz (2014) asserts that "how" and "why", questions are

particularly well-suited for GT methods and GT has the potential to allow researchers to construct theories or ideas grounded in the data.

Charmaz's interpretation of constructivist GT because a constructivist paradigm is well-aligned with the phenomenon being studied as well as the epistemological position of the researchers. Charmaz argues that a constructivist GT approach needs to be flexible and focused on enhancing interpretability. Constructivism asserts that learning is a social activity and intimately associated with our connection with other human beings (Edwards & Mercer, 1987). In this study, learning was built by interactions between the novice practitioner and the living world and mediated by a peer coach. Learning was situated in the context of an interaction, the social environment of the workplace, previous experiences and knowledge of the novice practitioner, and the physiological state of the practitioner, and cannot be separated from those contextual components. Because contexts varied from person to person, similar experiences can, and likely did, result in diverse meaning-making among individuals who share them.

Participatory research. In addition to employing GT analytical methods, this study employed participants as co-researchers (Gillis & Jackson, 2002; Kelly, 2005; Stringer, 1999), providing them with the opportunity to reflect on their documented experiences and participate in the analytical process. Involving participants in analysis has the potential to illuminate links between orientation experiences, perceptions, and learning. Participants are uniquely positioned to help "crack open" the unseen and unheard aspects of professional development and illuminate the perspectives that have not yet been studied to address the research question. Collaborative grounded theory case study strategies allow for both within-case and cross-case analyses as well as an opportunity for assertions to be presented as

theories. The participant's role in data production and analysis ensure that the data represent and adequately describe the experiences and perceptions of the participants (Kelly, 2005).

Research Context

This study took place in rural area of the southeastern United States over a two-year period between 2016 and 2018, after four novice early intervention practitioners had undergone orientation to organizational and evidence-based practices for working with infants and toddlers with disabilities and their families (i.e., natural learning environment practices, family-centered practices, resource-based practices, primary service provider approach to teaming, and a coaching interaction style). The small agency where the practitioners were employed during the course of the study, uses of a team of 13 practitioners to provide early intervention services to approximately 240 families at any given time. Practitioners from a variety of disciplines (i.e., teachers, physical therapists, occupational therapists, speech-language pathologists, and nurses) conduct home and community visits to assist parents and caregivers to promote interest-based child learning opportunities within the context of everyday family and childcare activities and routines. Agency administrators prioritize strengthening and monitoring practitioner adherence to evidence-based practices.

Agency's Induction Model/Process

Prior to the launch of this study, the professional induction process at the agency underwent a transformation, foregrounding constructivist theories of learning and focusing on the use of a coaching interaction style (Rush & Shelden, 2020) and experiential adult learning opportunities (Kolb, 1984). Each novice practitioner was assigned a peer orientation coach. The coaches were certified Early Intervention Fidelity Coaches, meaning they demonstrated fidelity to natural learning environment practices, family-centered practices,

teaming practices, a coaching interaction style, and an ability to support the learning of other practitioners as they journey to proficiency. The coaches were each assigned one novice practitioners and met with their assigned practitioner several times each week. Learning through the hands-on experience of engaging in the everyday interactions of their work provided the foundation for the learning experiences. Novice practitioners were instructed to keep an orientation journal of their experiences and reflections throughout the process.

Role of Researcher

In this study, the authors engaged in dual roles. The lead author was not only the principal investigator (PI) for the research study but was also employed by the agency and helped develop, implement, and monitor the constructivist induction process highlighted here. The PI provided direct support to the assigned peer coaches and served as a peer coach for one of the participants. The remaining authors were co-researchers as well as the participants (novice practitioners) of the study and one served as the peer coach for another practitioner who engaged in the induction process about 18 months later. Our immersion in the induction process posed advantages as well as potential complications to the inquiry process. As insiders in the induction process, the authors possessed inherent knowledge of experiences and challenges faced by the coaches and novice practitioners. The participants were aware of the nuances of the process and were perfectly positioned to explicate the induction happenings from the perspective of the participant. The principle investigator (PI), was afforded the opportunity to monitor and ensure that the induction process was used as the research suggests would be effective.

The PI and participants' intimate knowledge of the process and the data also had the potential to undermine the integrity of the study. Given that it was the PI's role to ensure the

fidelity to the implementation plan, she may have overlooked departures from the intended process, especially with regard to her own participation. Participants may also have filtered what they reported in their journals or in the interviews based on what they thought the PI wanted to hear or the PI may have used a biased interpretation of their data. To overcome this potential, the PI and participants used ongoing self-reflection through the memoing process (Charmaz, 2014) and member-checking (Lincoln & Guba, 1994) to ensure data were captured and interpreted as the participants intended. Engaging in the reflexive process together helped with mutual accountability to the systematic process and avoid what Charmaz (2014) refers to as 'common sense theorizing' (p 155) by maintaining strong ties to the stories as told by the participants.

Participants

The four participants serving as co-researchers included two speech-language pathologists, one early childhood educator, and one physical therapist. Three of the four participants had advanced degrees in their disciplines. Two of the participants were hired directly from their university programs and were engaging in their first professional employment experience. Two participants had worked in their field of study in a non-early intervention context providing speech-language services in the public school system. Only one participant had previous experience (2 years) working in early intervention (10 years prior to this study). See Table 1 for an overview of each participant. The duration of orientation for each participant (the final column in Table 1) was determined by the results of regular and systematic observations of her work with families and children using a set of checklists with evidence-based practice indicators.

Table 1

Summary Demographic Information for Study Participants

Participant	Discipline	Level of Ed.	Years of Exp.	Years of Exp. in EI	Race/ Sex	Duration of Formal Orientation
#1	Physical Therapist	DPT	0	0	White/ Female	72 days
#2	Speech Language Pathologist 1	MA	12	2	White/ Female	80 days
#3	Early Childhood Educator	BS	0	0	White/ Female	170 days
#4	Speech Language Pathologist 1	MA	3	0	White/ Female	76 days

Data Collection and Participatory Analysis

The data used in this study included pre-existing data (participant journals) as well as the collaborative production of new data (interviews).

Pre-Existing Data

During the induction process (ranging from 72 to 170 days), each novice practitioner was required to keep a journal of her orientation learning experiences and reflections. This data was used in real time by peer coaches and agency administrators to monitor the practitioner's breadth of experiences and comfort with the practices and the orientation process. Each participant's orientation journal was quite different in terms of length, tone, and content, and ranged from 211 to 421entries. After the practitioner's orientation process was completed, the journals were analyzed and used to produce additional interview data for this study.

New Data

Six months after the orientation process ended, the formal research study began. The PI worked collaboratively with each of the four practitioners in a process that combined participatory data analysis and semi-structured interviews. Prior to our collaborative sessions, each participant was asked to read back over her orientation journal and to highlight entries that, in retrospect, seemed significant to her development as an early intervention practitioner. Participants were purposively left to define 'significant' for themselves in order to illuminate their individual interpretations of what was perceived as important. Afterward, each participant met weekly with the PI over the course of eight weeks for a semi-structured interview. The interviews focused on gathering information from the participant about how she selected the entry as significant and how the experience impacted her learning and development as a practitioner. Together, the PI and participant then coded the reflections. After talking through each entry, the PI asked the participant to summarize the important aspects of the story she shared. After verbally sharing the salient points, the PI asked the participant to sum it up in writing on a data collection worksheet. The PI and participant then decided together how to label the written entry. Using the constant comparative method (Glaser & Strauss, 1967), we compared each entry to every other entry with similar labels and determined if the entry was imparting the same concept or if it was expressing a unique concept. If the concept was similar to an existing entry we changed the label (i.e., code) to match. If the concept was different, we began a new category. As categories became populated, we refined the description of the category to clarify the concept it was evolving to illustrate. A single unit of text often included multiple concepts and therefore was assigned

multiple categories. We added categories as needed, erring on the side of more categories. We developed definitions for each category to aid in sorting the data.

In grounded theory studies, the emergence of theoretical concepts shape decisions about which data entries might best illuminate the development of a theory and directed the analysis process. As data analysis wore on, practitioner attitudes and beliefs became a high-frequency theoretical category. The PI began intentionally probing for information (theoretical sampling) about the participant's dominant attitudes and beliefs about their abilities going into the experience and their attitudes and beliefs about their abilities as a result of the experience (Charmaz, 2014). With each new participant, the PI refined the interview questions to aid in gathering rich information about how the experiences impacted and were impacted by the evolving attitudes and beliefs of practitioners as well as their waxing and waning confidence. (i.e., "How did you decide this experience was significant?" "How did it impact your orientation experience?" "How did it influence your confidence?" "Why?" "How did it contribute to shaping you as an early intervention practitioner?") From the lens provided by the interviews, stories emerged that uncovered trends as well as divergent experiences that were further probed in the next round of coding.

After coding was completed with all four participants, the PI used a qualitative software package (NVivo 12 Plus) to expedite and increase the rigor of the process of focused coding (Leech & Onwuegbuzi, 2011). Focused coding required combining and refining categories and using them to construct theoretical concepts that are grounded in the experiential data (Charmaz, 2014). The process of selective coding required analyzing how categories are associated with one other, looking closely at what high-frequency categories reveal, being concise and comprehensive, and framing the categories in terms of the research

question (Polit & Beck, 2010). Halaweh, Fidler, and McRobb (2005) recommend using the focused coding process to identify the central or core category with represents the main theme of the research. When a core category appears repeatedly in the data and provides a context for the category, the data, it grounds the theoretical model. During focused coding, the PI combined categories into five enduring themes.

During and after each session with each participant, the PI produced procedural, reflective, and theoretical memos to record my ongoing actions and interpretation of the data and the process (Charmaz, 2014). The memos themselves became another source of data and were analyzed by the researcher. The PI applied initial coding to the memos to develop categories and focused coding to reduce the categories into themes. The memos confirmed that the PI's own thoughts about and impressions of the data were aligned with the practitioner's codes and provided an ongoing record of the theorizing with the data that was occurring during the conversations. The coded journal entries, interview data, and memos were reviewed by the PI several times during and after data collection and helped formulate the analysis into the theoretical framework described below.

Results/Findings: A Framework for Early Intervention Workplace Learning

Several similarities in the journeys of the participants emerged during data collection and analysis. All four participants described their experiences in terms of several key features (focused themes): 1) the situated opportunity with which they were presented or created, 2) their role within that opportunity, 3) the coach's role with regard to their learning, 4) their overall attitudes and beliefs about their level of competency (self-efficacy) to engage in the opportunity, and 5) what they learned (competence) during, or as a result of, the experience.

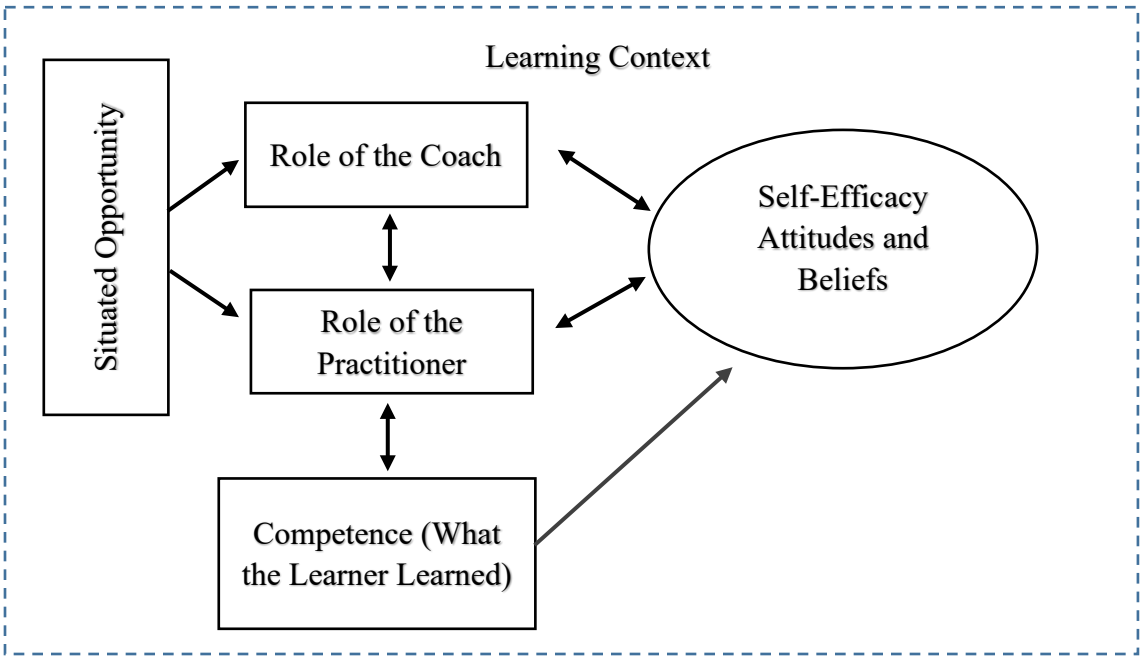

Figure 1. A theoretical framework for workplace when EWL and peer coaching are applied.

The figure above shows the theoretical concepts that were constructed as a result of a grounded theory analysis of a case of experiential workplace learning mediated by peer coaching. The arrows show the relationship between and among the components of the model.

The theoretical framework constructed from the data shows how the situated opportunity (e.g., home visit, meeting, paperwork) afforded the practitioner a range of potential experiential opportunities (role of the practitioner). The potential experiential opportunities were supported or constrained by the coach's actions (role of the coach). The role of the coach and the role of the practitioner balanced and influenced one another. The practitioner's self-efficacy beliefs about her own capabilities mediated the actions she chose to take during the learning opportunity. The actions of the practitioner lead to her competence, which increased her self-efficacy beliefs, enabling new roles and learning opportunities. The bidirectional arrows throughout the framework illustrate the interdependence of the components on one another. The unidirectional arrow between

competence and self-efficacy shows that while competence influences self-efficacy attitudes and beliefs, self-efficacy does not impact competence without action from the practitioner.

The following sections describe each component of the framework and provide examples of practitioner perceptions that illustrate and support the construction of the component. First, we describe how the components of the framework collectively establish a context for workplace learning. Next, we describe the role that situated opportunities played in setting the stage for potential real-life workplace learning experiences to occur. Then, we describe how the role of the coach and the role of the practitioner influenced one another and also impacted and were impacted by the practitioners' self-efficacy attitudes and beliefs. Finally, we describe how practitioner competence impacted and was impacted by the other features of the framework.

Learning Context

During the professional induction process, learning occurred within contexts. The learning context was comprised of all the components of the framework and is represented by the dashed line encompassing the entire framework. A situated opportunity provided the potential for a range of possible experiences, but the role of the coach and practitioner (influenced by the practitioner's self-efficacy beliefs) determined which of the potential experiences would be acted upon by the practitioner and in what way. The same situational opportunities had the potential to contribute to different learning contexts because as the practitioner built, competency her role and subsequently the coach's role varied. All of the components working in concert with one another constructed the overall context for learning. Like levers all connected to the same system, pulling on one adjusts the others to create a

unique balance. Each experiential learning opportunity was its own unique balance of practitioner, coach, and environment factors.

Situated Opportunities

The situated opportunities for learning were mostly comprised of field-based, work-related activities (e.g., service delivery in home and community-based settings, documentation of services provided, collaboration with other providers, and IFSP meetings) (see Table 2). Field-based activities are those experiences in which the practitioner would have engaged even if she were not engaged in orientation. Other contexts also included specially constituted experiences for the purpose of learning new practices or skills. Specially constituted contexts included group experiences such as orientation planning meetings, role plays, observing a colleague, planned and spontaneous conversations with colleagues, conversations with the coach, and solitary events such as journaling or self-assessing. Situated opportunities led to a variety of supports provided by the coach and facilitated varied roles with respect to the practitioner's engagement.

Table 2

Situated opportunities in which experiential workplace learning occurred

Situated Opportunity Codes	**Subcategories from the Data**
Administrative Activities	• Paperwork • Reading
Hands-on Activities	• Conducting visits • Planning visits
Reflecting	• Self-assessing • Journal writing • Talking with a colleague or coach

Collaborating with Others	• Discussing work with others • Training • Role-playing • Meeting • Orientation group

The situational opportunities set the stage for engagement by the novice practitioner. Some opportunities were naturally experiential allowing for a range of potential practitioner engagement and other activities were naturally more passive (literature searches, documentation, meetings in which the practitioner did not have a lead role). Opportunities that were highly engaging and experiential (home visits) were described as more significant by practitioners and lead to instances of self-reported cognitive dissonance which the practitioner worked to resolve through additional experiences and reflection. Practitioners also described that discipline-specific experiential tasks (e.g., designing an orthotic, consulting with a primary service provider on feeding supports) were highly significant because they allowed the practitioner to "be a real therapist" and not "just a learner." These reassuring events where practitioners demonstrated mastery seemed as important to their development as the activities that challenged their thinking and pushed their skill-building opportunities.

Roles of the Coach and Practitioner

The roles of the coach and the practitioner helped create the overall context for action within the situated opportunity. This includes how the role of the coach was perceived by the practitioner, how the practitioners perceived their own roles, and how both roles impacted and were impacted by the practitioner's self-efficacy attitudes and beliefs that ultimately mediated their competence.

Role of the coach. The role of the coach was primarily spent helping the practitioner prepare for experiential learning activities, providing shoulder-to-shoulder support in the context of field-based experiential learning opportunities, or prompting reflection and providing feedback to the practitioner after the experience (see table 3). Novice practitioners reported numerous times that coaches helped them plan what their role would be during a visit. One participant noted, "My coach and I planned for me to lead this visit until the part where we need to develop the new joint plan with the family. I made sure to prepare myself for what to expect, and I did pretty well" (day 10).

Table 3

Role of the Coach with Regard to the Novice Practitioner

Role Codes	**Subcategories from the Data**
Planning	• Facilitating planning for a visit • Facilitating planning for the practitioner's continuous improvement
Demonstrating/Modeling	• Leading a visit while practitioner watched • Jumping in to model a practice or aspect of the visit being led by the practitioner
Providing Feedback	• Providing feedback during the visit • Providing feedback after the visit • Corroborating
Promoting Action or Practice	• Restraining from intervening • Creating an opportunity • Interacting collegially • Asking for the practitioner's help
Prompting Reflection	• Prompting reflection during a visit • Prompting reflection after a visit

Assigning a Task	• Assigning the practitioner a task to facilitate learning prior to a visit or in response to a visit (e.g., documenting the visit, conducting a literature search, role-playing)
Offending the Practitioner	• Providing unwelcome feedback • Holding the practitioner back from doing more

Coaches also provided moral and instrumental support during the visits. Novice practitioners reflected on how helpful it was that the coach was there in case needed as well as how helpful it was when the coach jumped in to demonstrate how a practice was intended to look. One participant shared, "I was able to do some coaching with this family and I appreciated how my coach gave me some code words like, 'analysis,' and 'alternatives' to prompt me. It gave me just enough help that I could do it myself. I would like us to continue this [strategy]" (day 2).

Novice practitioners wrote detailed descriptions of how the coaches helped them reflect after the visit. One practitioner noted, "after the visit my coach and I reflected on the visit. I was surprised by how well I did. I don't give myself enough credit and it ruins my confidence… I think I can do more" (day 64). Novice practitioners spoke highly of the post-visit coaching conversations, and separately indicated that these conversations served as a compass for the practitioner, scaffolding their own ability to evaluate their work against an evidence-based standard. The coaches used their own professional judgment based on observations and discussions to decide how much to push the practitioners to do more. If the coach perceived that the practitioner was not ready to lead the entire intervention visit, she may have recommended the practitioner facilitate a smaller part of the visit. How the coach prepared the practitioner for the experience and provided anticipatory guidance determined how much of the visit the practitioner was prepared to lead. The degree to which the coach

and practitioner developed a back-up plan for additional support during the visit also impacted the practitioner's role. When the coach and practitioner had clear signals, the coach could temporarily step into the lead role during a visit to demonstrate a skill or practice and step back out allowing the practitioner to practice what she observed. One practitioner illustrated this when she shared, "My coach and I decided that I know more than what I am doing. We decided that she would not step in during the parts I know how to do so that I don't use her as a crutch. She stepped in when I needed her to show me how to model a new strategy and I finished the visit with a good joint plan" (day 20). When the coach did not facilitate a clear plan and the practitioner got stuck, the coach stepped in and continued to lead for the remainder of the visit. A competent coach closed the gap between what the practitioner could do and what needed to be done in order to maintain the integrity of the visit.

Less frequently, coaches (and colleagues who served as coaches when the coach was not available or when arrangements had been made) assigned a learning activity to the practitioner that was related to a real visit or a practitioner-lead inquiry, such as visiting the assistive technology center, engaging in a role play, or conducting a literature search. Infrequent, but noticeably, coaches were also described by novice practitioners as having "created opportunities" for the practitioner to learn, get ahead, and/or have more access to the experiences the practitioner favored. These opportunities may have been a normal part of peer coaching, but they were perceived by the novice practitioner as special acts of the coach that may have served to strengthen the coach-coachee relationship.

Infrequently, but impactfully, the coaches offended and/or deterred a practitioner from participating fully in the experiential aspects of the learning opportunities. One

participant expressed that talking with her coach one day about the pace of her orientation process "made me feel defensive and not fit for the job" (day 47), impairing her confidence to adopt a leadership role in several subsequent visits. Another reported on multiple occasions that her coach was, "…sending me messages that I was not ready for things I knew I could do…I went along with it because she was more knowledgeable and more experienced than me and she was my coach, but it also pissed me off" (day 55). She quickly found a colleague to serve as a "supplemental coach" who positioned her to dramatically increase her active participation in the experiential learning process. In partnership with her self-selected coach, she reported that she was "thrown into the deep end and got to see for myself what I could do and where I needed more information or practice. She still helped me during the visit when needed, but I think my learning accelerated because I was in charge" (day 62).

The extent to which coaches mobilized experiences and prompted reflections on those experiences seemed to influence the degree to which practitioners developed competence and confidence. Multiple practice opportunities afforded by high degrees of experiential learning were likely to impact competence (Beard, 2010; Chickering, 1977; Clark & White, 2010; Felicia, 2011; Kolb, 1984, 2012; Moon, 2004), and successful attempts to implement practices in real-life situations likely increased confidence (Bandura, 1982; Stajkovic & Sommer, 2000).

Role of the novice practitioner. The practitioner's role was largely defined along a continuum of watching to leading and almost always included reflection of some sort. Table 4 describes and defines the multiple roles occupied by novice practitioners during the induction process.

Table 4

Role of the Novice Practitioner During Professional Induction.

Role Codes	Subcategories from the Data
Learning in Action	• Learning through active participation in a real-life aspect of conducting the work (i.e., leading all or part of a visit) • Completing paperwork associated with an early intervention visit • Participating in team meeting • providing colleague-to-colleague support
Helping Others	• Helping a colleague • Providing the coach with information/support
Observing	• Observing with a purpose
Reflecting	• Reflecting in action • Making a plan for continuous improvement
Seeking Information	• Talking with a colleague • Reviewing the literature • Taking initiative
Following Directions	• Completing paperwork • Following a directive

The role of the novice practitioner was determined by the situational opportunities afforded by the experience, the confidence of the practitioner, the priorities of the practitioner, and the professional judgement of the coach. The practitioner's role was often a negotiation between the practitioner and the coach. They jointly determined the practitioner's priorities for learning and collectively assessed the practitioner's knowledge and confidence and determined the "appropriate" level of practitioner action. Hands-on experience with leading as much as possible was the default unless either the practitioner or the coach provided an agreed upon reason to scale back the practitioner's role (e.g., practitioner's low confidence, family or child factors). Three of the practitioners responded positively to

maximizing experiential learning, discussing these opportunities (even the ones that did not shine them in the best light) with enthusiasm. One participant shared, “The visit didn’t go perfectly, but I was identifying what I could have done differently during the visit and even conducted some self-correction in the moment… I can do this!” (day 46)

Only one practitioner expressed a preference for observing and withheld interactions during the visits until pushed to do so by a coach, “I need to watch until I know exactly what to do. I want to get it perfectly.” She described her preferred learning style as she described an experiential learning opportunity with a colleague:

> I was able to play through in my head to see how my ideas matched what I saw my colleague do. I was impressed that I was correctly assessing the situation and knew what to do. I was leading the visit in my mind while my colleague was conducting the visit, comparing myself to her (day 110).

All four of the novice practitioners pushed back against their coaches to gain more independence from the structure of the orientation process. The participant who perceived that her coach was not giving her enough autonomy and was “holding her back,” intentionally avoided her coach in lieu of working with a colleague who provided her with more responsibility and independence during visits. Once she sought this out her confidence increased, and her competence flourished. Another participant recalled a day of pushing back when her coach was out sick unexpectedly. Rather than ask a colleague for support or reschedule the visits, she completed all the visits on her own without telling anyone, “I knew I could do it myself and I did. I felt like a normal practitioner, not someone in orientation” (day 72). Yet another participant described a similar decision she unilaterally made to start going on visits with a coach or colleague. She commented, “when no one stopped me, I just

kept going. I knew if I practiced on my own, I would be less self-conscious, and I would get it" (day 152). She wanted to be "…one of the team, not someone who was learning and needed a coach." These incidents of pushback are perhaps a signal that a practitioner's self-efficacy beliefs are high and that she is perfectly positioned to maximize learning through experience. During our collaborative review of the proposed framework, one participant described and the others concurred that the pushback was a way of conveying, "I know what I want for myself is correct and I am empowered to make what I need happen for myself and for my professional well-being."

Self-Efficacy Attitudes and Beliefs of the Novice Practitioner

During the process of data collection and analysis, an overarching theme which seemed to ground our interpretation of all other data (i.e., journals, interview data, and theoretical memos), was practitioner's *attitudes* and *beliefs* about the content and the process in which they were engaging. It was so pervasive that it inevitably became the conversation centerpiece for each of the practitioners' "significant" entries. Practitioners used self-efficacy terms to describe their enthusiasm about the experiences they encountered. One participant described "getting to" present a report in team meeting for the first time stating, "I finally get to show my coach that I can do this. I am ready" (day 67). Attitude and beliefs that illustrate high levels of confidence in one's abilities were preceded by practitioners' enthusiastic participation in an experiential activity. When the activity did not turn out as successfully as the practitioner had hoped, the role of the coach prompted reflection on what went wrong and helped the practitioner maintain enthusiasm for trying again. Practitioners also used self-efficacy terms to describe their uncertainty about a potential experience. Another practitioner noted, "I wasn't sure what how I was supposed to respond to the mom, so I let my coach do

all the talking" (day 14). Her lack of confidence in her ability to perform a skill in which she had not yet been successful impeded her active participation in the visit and her opportunity for experiential learning. The lack of confidence was not easily overcome and required a great deal of support from the coach, who provided opportunities for reflection, role-playing, and positive feedback.

Self-efficacy attitudes and beliefs appears in the middle of the model because the accumulation of successful experiences designed and implemented in coordination by the coach and practitioner culminated in increased self-efficacy beliefs. The result was increased experiential learning as exemplified by high-confidence and competence. The self-efficacy beliefs of the practitioner seemed to be the fulcrum on which the participation in experiences and the resulting confidence and competence rested. Although interactions among all of the categories can be noted, practitioner attitude and beliefs impacted and were impacted by all other categories and attitudes and beliefs seemed to mediate the subsequent action adopted by the novice practitioner.

The Development of Competence Mediated by Self-Efficacy

All four practitioners shared in their journals and interviews what they learned as a result of participating in the experiential learning opportunities, interactions with their colleagues, and through reflections with their coaches. Table 5 shows the competencies practitioners reported in their journals and interviews. Emerging competencies were reinforcing factors providing increased self-efficacy beliefs and a desire or willingness to reach for more experiential opportunities.

Table 5

Competencies Described by Novice Practitioners During Induction.

Competency Codes	Examples from the Data
Implementation Competencies	• Content knowledge • Evidence-based practices • Teaming • Incorrect procedures/practices
Personal Awareness Competencies	• Importance of planning/preparation • Self-awareness • "This is what I want to do" • Learning how to reflect
Competencies at Navigating the Organization and How I fit in	• Administrative functions • Community/organizational politics • Organizational culture: How things work • "What a great resource my colleagues are" • "I'm not in it alone"
Learning How to Learn	• "It's no big deal if things don't go perfectly" • "Bad things happen" • "Things don't always go as expected

As practitioner competencies amassed throughout the induction process, the way they wrote about their experiences changed. They had a relaxed demeanor and described in the interviews that they knew enough to "not stress over it." Knowing more about the expectations and the practices, they were able to evaluate their own practices against an evidence-based model and gained control of their learning. The increased levels of competence reinforced the confidence and the confidence lead to more skill-building opportunities, creating a self-reinforcing cycle. All four practitioners moved in and out of what was described as high and low "confidence" with striking patterns of similarity. What practitioners initially described as confidence emanating from perceived successful or unsuccessful activities are now known as self-efficacy beliefs. Bandura (1997) described confidence as a "nondescript term that refers to strength of belief but does not necessarily

specify what the certainty is about" (p. 382). On the other hand, "perceived self-efficacy refers to "the belief in one's agentive capabilities" (p. 382) based on a level of attainment. Bandura described confidence as a catchword rather than a construct rooted in theory. Self-efficacy includes an affirmation of a capability level and the strength of that belief (Bandura, 1997).

Practitioner's experienced micro-bursts of high and low self-efficacy beliefs on a weekly and sometimes daily basis. These small shifts were punctuated by landmark bouts of high and low self-efficacy beliefs that were catalyzed by significant events. The landmark low self-efficacy events were described by participants as meltdowns and the landmark high self-efficacy times were described using terms like, "I got this!" and "this is what I want to do!" Bouts of high and low self-efficacy beliefs seemed to influence the practitioner's willingness and ability to engage in experiential learning and reflection and were not easily transformed.

Being able to provide help and expertise to a colleague was a transformational experience described by all but one practitioner. One sign that the novice practitioners had "arrived" as a professional is the perception that she was seen as an expert in some regard among their peers. One practitioner shared that she never experienced the phenomenon of being considered by herself or her peers as an expert at anything. Although she had developed expertise, she was never "the expert." As the other three practitioners, who had come from very specialized preparation programs (i.e., PT, SLP), shared the significance of knowing that a colleague needed information or support and how their ability to fill this need catalyzed their confidence and reinforced their competence, the practitioner was never identified as the most experienced or informed member of the team. As she listened to her

colleagues fervently discuss the value of having occupied the role of expert among their colleagues, she solemnly shared, “I was never the expert in the room. No matter what the topic and how much I knew, someone always knew more than me and I knew it.” Her low self-efficacy beliefs may have played a significant role in her willingness to actively participate in some experiential learning opportunities and may have been responsible for the lengthy duration of her orientation process.

The competency cycle ended when the practitioner’s self-efficacy beliefs perpetuated action, reflection, and competence building with minimal or no formalized support from the peer coach. Peer coach and supervisory observations showed competence at implementing the indicators of evidence-based practices (i.e., natural learning environment practices, coaching, and family-centered practices). After the induction process was deemed over (as measured by formal observations), the practitioners continued to engage in contextualized learning under their own capabilities.

Discussion

The purpose of this study was to construct one or more theoretical concepts that illuminate how practitioners perceive experiential learning and peer coaching supports to produce confidence and competence at using evidence-based early intervention practices. Although four cases hardly constitute a robust sample from which new theory can be built, the in-depth look at four cases can be instructional in illuminating theoretical concepts that may relate to adult learning in the early intervention workplace. This study has resulted in a proposed framework constructed from the data that helps to illuminate the learning process (Figure 1) as it was perceived by the novice practitioners.

Experiential Workplace Learning

The model for experiential workplace learning presented here was constructed from the perceptions and experiences of novice practitioners engaging in early childhood intervention work. Although several frameworks for professional development have been offered (see Browder et al., 2012; Deardorff et al., 2007; Dunst, 2015; Dunst & Trivette, 2009), no other framework for professional induction seem to appear within the field of early intervention. Manuti and colleagues (2015) suggest that further research on workplace learning should focus on practice in specific industries and contexts rather than in theory. The early intervention context provides considerable variation from other types of workplaces in which workplace learning has been studied. Early intervention practitioners work in field-based teams or individually, and often lack an office culture. The work product does not exist in a central location but is expressed in the outcomes experienced by children and families within the communities served. This study has begun to the fill the gap by initiating a framework for understanding how workplace learning occurs within the context of early childhood intervention and from the perspective of the learner that elaborates on an informal workplace learning framework offered by Michael Eraut (2004).

Eraut (2004) noted that much of learning at work involves doing things and being proactive in seeking learning opportunities, which requires confidence and that confidence results from successfully meeting challenges in one's work. The worker's confidence to take on challenges is directly related to the degree the worker felt supported in the endeavor. Aligned with Eraut's findings, the early intervention experiential workplace learning (EWL) framework not only shows the relationship between learning context, the support provided by the coach (role of the coach), the learner's ability to participate in work-related challenges

(role of the learner), but it also shows how those interactions lead to practitioner self-efficacy beliefs, which mediated their evolving confidence and competence.

Self-Efficacy

Interestingly, self-efficacy attitudes and beliefs emerged as a central feature of the theoretical framework for experiential workplace learning mediated by peer coaching. Self-efficacy beliefs are dynamic personal factors that Bandura contended are crucial to human agency and our ability to act. Indeed, self-efficacy beliefs seemed to play a large role in enabling and constraining action on the part of the practitioner in the study. Self-efficacy beliefs are believed to mediate the relationship between knowledge and behavior with a specific context (Bandura, 1997). As seen here, self-efficacy attitudes and beliefs mediated the degree of initiative novice practitioners felt comfortable taking, and determined the type (e.g.,, joint planning, prompting reflection, providing feedback) and degree (e.g.,, non-verbal prompts, verbal prompts, demonstration) of support coaches needed to provide in order to maximize practitioner active engagement in the learning process. The actions and attitudes of practitioners engaged in this grounded theory study were well-aligned with Bandura's beliefs that self-efficacy affects learning and performance in the workplace. Bandura asserts that employees with high self-efficacy beliefs choose challenging goals and set high levels of commitment toward those goals, are confident they will be successful and so work hard to learn new tasks, persist for longer, recover faster from setback, and experience less stress and anxiety when engaged in challenging tasks. Self-efficacy beliefs strongly influenced the novice practitioners' approach to an experiential opportunity and seemed to have been a major determinant in the level of confidence the practitioner brought to the task and the level of engagement they exhibited during the task.

Implications

This grounded theory study examining the professional induction experiences from the perspective of four novice early intervention practitioners has multiple implications for the field of early intervention and for future research studies. The framework proposed here can serve as a blueprint for establishing an experiential workplace learning process in early intervention and can inform programs of efficient ways to leverage organizational resources.

Blueprint for workplace learning in early intervention. Experts generally agree that typical levels of transfer of learning from formal settings to the workplace is between 0 and 30% (Broad 1997; Joyce & Showers, 2002). Additionally, Mary Broad (1997) found that as little as 15 percent of content is still being applied by learners a year after the learning event occurred. Efficient means of learning and applying new knowledge and skills is essential to maximize and sustain child and family outcomes. In addition to the components of experiential workplace learning noted in Figure 1, the EWL process implemented with the four novice practitioners described here, likely also provided an implementation infrastructure that contributed to practitioner confidence and competence.

EWL framework. novice practitioners were able to experience, reflect on, and make meaning from events when organizational resources were levied to provide trained peer coaches, work time for coaches to provide planning, scaffolding and reflection, and administrative support. The experiential workplace learning process began with a context for learning, which was most often an early intervention visit or meeting. The context invited the practitioner's engagement at various levels and the peer coach mediated the practitioner's engagement through shoulder-to-shoulder support. The role of the practitioner and the role of coach impacted and was impacted by the practitioner's self-efficacy attitudes and beliefs.

The self-efficacy beliefs ultimately determined the level of engagement of the practitioner and the practitioner's resulting confidence and competence.

Implementation infrastructure. Several aspects of the organization's infrastructure and culture may have also impacted novice learner's perceptions of their EWL process. The on-demand availability of the coach as well as other colleagues was afforded to novice practitioners because the practitioners serve as a geographically-based team and work together to serve a group of families (i.e., primary service provider approach to teaming). The nature of their work requires frequent interactions. Weekly team meetings provided another natural work-based context for learning from one another. Joint visits (i.e., a visit in which a secondary service provider accompanies the primary provider in order to coach and support both the parent and the primary provider; Shelden & Rush, 2013) allow all team members to both teach and learn from one another.

The organizational culture of continuous learning allowed practitioners to "let down their guard" and allow the learning to be an open, visible, and valued activity. Practitioners observed that their experienced colleagues were also learning and being coached by colleagues as a typical, frequent interaction style. All of the novice practitioners mentioned in some way that their perceptions of being coached evolved from believing that it was something in which they were participating because they were "not good enough yet" to something that all members of the organization gave and received because of the value the organization places on learning through reflection. Learning in context with support and opportunities for reflection are hypothesized to provide meaningful professional development (Eraut, 2004). Coaching was not a punishment, but part of the culture of a learning organization.

Use of organizational resources. The findings from this study will not only contribute to the knowledge production in the field of early intervention professional development and induction, but also can result in real benefits to programs struggling with the most effective way to use valuable resources to orient new staff members. States and programs use costly financial and personnel resources to provide the support and infrastructure to create and maintain a highly-qualified workforce. The findings from this study, illuminate the process and perceptions that guided novice practitioners' knowledge production during their professional induction process, and can ultimately lead an agency and the field to design more efficient, engaging ways to support them in workplace learning. Refining professional induction practices in early intervention can conserve valuable human and financial resources and result in a skilled and confident workforce.

Funding for workplace learning is largely reserved for formal learning. Giving the potential impact of informal learning, studies such as this one may provide a rationale for investing needed funds into institutionalizing the informal or semi-formal learning opportunities. Research shows that 56% (Carliner, 2012) to 90% (Van Dam, 2012) of learning takes place outside of formal settings. While most workplace learning takes place informally on-the-job through coaching, mentoring, experience, and other serendipitous experiences, this type of learning does not go through a training department and is often not tracked by the organization, or supported through budget allocations (Eraut, 2004). Findings from this small study suggest that programs can become more efficient in their use of resources by training a cadre of peer coaches to provide ongoing, on-demand support and scaffolding for practitioners who are learning.

Inform future studies. Although research exists to support the use of both experiential learning (Eraut. 2004; Fenwick, 2008; Jacobs & Park, 2009; Schlette, et al., 2014; Smedley, 2008; Trede et al., 2016) and peer coaching in the workplace (Dunst et al., 2019; Ingersoll & Strong, 2011; Smedley, 2008; Trede, Sutton, & Bernoth, 2016), no studies have been identified that address the key ingredients of both strategies used together within the context of the early intervention workplace and specifically during new practitioner induction. Evaluation of early intervention experiential workplace learning designs are needed to fully investigate the potential and implications of this method of professional induction. Other fields and disciplines can inform early intervention professional development on the power and potential of experiential workplace learning. Early intervention researchers may find it useful to understand the degree to which workplace learning is facilitated or constrained by various organizational conditions (i.e., allocation of work, social climate of the workplace etc.). Other frameworks for promoting experiential workplace learning can be developed and studied. With regard to this and future frameworks, additional, larger scale studies are needed to identify the key conditions and benefits of workplace learning within the context of early intervention induction. In addition, this study provided some interesting connections between experiential workplace learning and development of practitioner self-efficacy.

Specifically, several themes emerged from this study that may be worth investigating more fully. For example, investigating the experiential workplace learning process through an a priori analysis of Bandura's self-efficacy model is beyond the scope of this grounded theory study, additional studies could be conducted to further demonstrate the characteristics and consequences of self-efficacy in the early intervention workplace or further illuminate

how positive self-efficacy beliefs lead to actions and learning. Furthermore, the role of practitioner expertise within the team and how practitioners see themselves in relation to their colleagues can be further studied. The stories shared by the practitioners remind us that investigating the factors that contribute to high versus low self-efficacy and short versus long orientation periods may be called for.

Limitations

The small sample size included in this study limits the power and transference of the findings. A larger sample size provides additional assurance that the patterns and trends perceived by the practitioners are not anomalous. Future studies can add to the knowledge base that has been established in this study and should contribute to a more refined understanding of what practitioners perceive as they navigate their induction process and from their data more nuanced theoretical findings will likely emerge.

Conclusion

The purpose of this study was to illuminate how novice practitioners become confidence and competent at evidence-based early intervention pedagogical practices through the use of job-embedded experiential learning opportunities scaffolded by peer coaching. The data collected from novice practitioners showed that experiential work-related contexts provided opportunities for novice practitioners to develop knowledge and skills using evidence-based practices when mediated by a peer coach. The experience leads to self-efficacy beliefs that engender confidence and competence. The EWL framework is offered as a starting point for a robust conversation fueled by additional studies.

Chapter 6: Conclusion

Introduction

In addition to this study being a collaborative, grounded theory, case study, this project addresses a real-world problem in the context in which it occurs. Early childhood intervention programs across the country, including the one in which I work, are challenged by how to develop and maintain a highly-qualified workforce. Administrators, including myself, engage in a daily struggle of how to best leverage limited resources to achieve positive outcomes for children and families. This project, at its roots, is a practitioner inquiry (Campbell & McNamara, 2009). It is my attempt to think critically about a successful practitioner orientation process I observed and wrangle all available data to understand and make meaning from the phenomenon. In an attempt to create new knowledge, I reached into the background to elevate and foreground data that has largely gone untapped in past studies (practitioner voices) in a fruitful attempt to construct something new.

In this final chapter, I synthesize and reflect on my experiences as the principal investigator of this participatory grounded theory case study. I begin by offering a chapter-by-chapter review of the current study. Then, I position the study more broadly by highlighting its contributions to the field of early intervention and experiential workplace learning and present the limitations of this study. I discuss the implications for the results of my research study and forge a plan for future inquiry with regard to this data set, as well as other studies needed to support early intervention professional induction.

Looking Back: Reviewing the Current Study

The decision to engage in a non-traditional dissertation process was not taken lightly. As a doctoral student, emerging scholar, and practitioner of educational administration, I thought carefully about the advantages and disadvantages with regard to each of these roles. As a doctoral student, engaging in a traditional dissertation process may have been the easier route. The roadmap for how to conduct a traditional dissertation study has been paved by generations of successful students and may have ultimately facilitated a quicker dissertation process. As an emerging scholar the traditional dissertation process provides an outlet to showcase the knowledge and skills developed during the rigorous doctoral program. In my humble opinion, emerging scholars should also have facility with the professional writing process beyond academia. Scholarly conversations occur in journals, conferences, and collegial conversations. Practicing the multiple ways scholarly work is disseminated was an interest of mine. As a practitioner immersed in educational administration and with a high interest in writing for peer-reviewed journals, the traditional dissertation process seemed a distraction from and a barrier to how I intended to apply my new knowledge and skills.

My perception of the doctoral process was that it is conveniently geared toward helping students prepare for and be successful during the dissertation process. Consequently, students must create opportunities to learn and practice skills consonant with their own professional goals. I easily visualized how the dissertation process could serve as the outlet I was missing and could provide me with the opportunity to develop writing skills with the scaffolding and support from experienced faculty members who I invited onto my committee. Using the dissertation process as a scaffolding opportunity allowed me to round out and personalize my doctoral educational experiences to meet my professional goals.

Ultimately, my decision served me well. I was able to produce three traditional chapters, two manuscripts suitable for peer-reviewed publication, and reflect on the experience in the sixth chapter, the conclusion.

Review of Chapter 1

In Chapter 1, I described the significance of a study on early childhood intervention professional induction and established the framework for this dissertation. Early intervention professional induction aims to ensure that practitioners can implement early intervention practices with fidelity and increases the likelihood that families will experience positive capacity-building outcomes. Delaying professional development until programs recognize deficits in practitioner implementation of practices, potentially and needlessly exposes families to sub-standard interventions and reinforces non-evidence-based practices among the practitioners who are building professional habits of practice. Frontloading professional development during the first months of hire, by creating an induction process, can provide practitioners with an evidence-based foundation for practice and may eliminate the need for costly intensive professional development experiences later on designed to change attitudes and behaviors to which practitioners had become acculturated.

Review of Chapter 2

In Chapter 2, I presented a review of the relevant literature pertaining to early intervention induction and professional development as well as workplace learning, I discussed the predominant methodologies, and highlighted the gaps in methodologies used to investigate workplace professional development as well as the gaps in knowledge left by the privileging of quantitative studies to the exclusion of qualitative studies. I reviewed the research methodologies and methods dominant in the early intervention induction literature,

the early intervention professional development literature, and the professional development literature in the related fields of education, healthcare, and the allied health professions. I discussed the privileging of *what* questions throughout the professional development literature to the exclusion of *how* and *why* questions that have the potential to inform and refine our operational theories for workplace professional learning. I also discussed the gaps and limitations in the existing early intervention induction and professional development literature.

Review of Chapter 3

In Chapter 3, I described the case study methodology and grounded theory methods that were employed to understand early intervention professional induction from the practitioner's perspective. Through participatory research and inductive means, I worked with the participants to generate the beginnings of a theoretical framework for workplace learning in early intervention.

Review of Chapter 4

Chapters 4 and 5, I presented the data from this study in two publishable formats with specific peer-reviewed journals in mind. First, in Chapter 4, I described the framework for experiential workplace learning (EWL) and discuss how it was applied to a small early childhood intervention program's professional induction process for four novice practitioners. When paired with peer coaching, EWL was an efficient method for ensuring the uptake and use of evidence-based early intervention pedagogical practices by novice practitioners. This manuscript is expected in appeal to practitioners and administrators who share my struggle with how to use program resources to efficiently and effectively bridge the research-to-practice gap experienced by the field.

Review of Chapter 5

In Chapter 5, I presented a case of early intervention induction using experiential workplace learning and peer coaching and explored the experiences and perceptions of four novice early intervention practitioners who participated in an experiential learning process facilitated by peer coaches. I used grounded theory methods to construct a framework for considering the adult learning process within the context of experiential workplace learning. This manuscript showcased the power and potential of engaging study participants as co-researchers and co-authors as they individually authored and analyzed their experiences, and collectively interpreted and theorized for the purpose of developing a theoretical framework grounded in their own data. Voices that were largely unheard and consequently under-valued were not only included but foregrounded as the focus of and impetus for the first early intervention professional induction theoretical framework.

Looking Forward: Contributions and Future Implications of the Current Study

Given the profound absence of studies that investigate professional induction in early intervention, and in light of the demonstrated need as evidenced by the research-to-practice gap, an exploratory study was needed to examine the conditions and/or processes that impact practitioners' construction of competence (skill at delivering high-quality practices) and confidence (belief in their ability to implement outcome-generating, evidence-based practices). This study leveraged underutilized analytical methods for arriving at theoretical concepts that informed the beginnings of a theoretical framework from which empirical studies can further elaborate. Grounded theory methods provided the tools needed to systematically investigate and interrogate the lived experiences of novice practitioners traversing their first months within the multidisciplinary field of early intervention. The small

case of one early intervention program inducting four new practitioners provided a platform for illuminating the conditions that bred practitioner competence and confidence and contributed to the field of early intervention by (1) illustrating the need for diverse methodologies; (2) highlighting the unheard voices and experiences of participants; (3) foregrounding professional induction as a critical field of study within early intervention professional development; and (4) proposing a framework for understanding how practitioner competence and confidence are developed during experiential workplace learning mediated by peer coaching.

Illustrate Underused Methodologies

The study served an important role in the early intervention landscape by illustrating how underused methodologies—specifically participatory grounded theory case study—can produce knowledge. Chapter 2 revealed an absence of and a need for qualitative studies to ground and provide the multiplicity of perspectives required to understand how professional development is being experienced by novice practitioners; how they are making meaning of from the learning opportunities, organizational influences, and social interactions with their peers; and how they are perceiving their own evolving subjectivity as a practitioner. The historical privileging of positivistic methods in our field to the exclusion of interpretive and constructivist methods has resulted in a limited understanding of how early intervention practitioners develop competence and confidence through workplace learning. This study brought to the foreground how qualitative and inductive can yield knowledge and serve as a platform for future studies.

Future studies can capitalize on the path carved by this dissertation by continuing to leverage diverse methodologies and methods that help illuminate how early intervention

professionals are perceiving and making sense of the informal and formal professional development experiences in which they participate. Additional qualitative studies are needed to build upon this case study and fully develop the framework proposed in Chapter 5. Adding additional cases of induction experienced at different organizations with a diverse population of multidisciplinary participants would provide data for a more refined and robust theoretical framework. Qualitative studies are also needed to bring the voices and perspectives of the peer coaches into conversation with the perspectives of the coachees. Finally, qualitative studies can be instrumental in understanding the organizational attributes and conditions needed to maximize professional induction outcomes for participants.

Raise Underheard Voices and Experiences

As noted in Chapter 2, few studies have focused on the lived experiences of engaging in professional development from the perspective of the participant. Researchers assert that foregrounding participants' voices help us understand how participants are making sense of the learning opportunities afforded by professional induction and perceiving themselves within the context of the experiences (see Bauml, 2011; Charteris et al., 2017; Correa et al., 2015; Elder & Padover, 2011; Hobson & Ashby, 2012). This study treads into lonely territory by bringing the largely ignored voices of participants into the early intervention professional development conversation. Participants' accounts of their own experiences have deep implications in understanding *how* they 'become' successful practitioners in the field (Hobson & Ashby, 2012). Future studies should continue to foreground the perceptions of participants as well as the other "actors" in the experience whose differing 'truths' illuminate a more complete picture of how professional learning occurs, how it is best supported, and how to overcome conditions that may thwart it.

Highlight Professional Induction

Although the literature pertaining to formal and informal methods of practice-based professional development in the workplace is rich (see Billet, 2001; Engestrom, 2001; Eraut, Alderton, Cole, & Senker, 1998; Fuller & Unwin, 2002), it has not yet infiltrated the field of early intervention. This study fills a noticeable gap in that it highlights the professional induction process and how it leads to practitioner confidence and competence. Given the under preparedness of practitioners as they enter the field of early intervention, expanding the professional development conversation to include evidence-based methods of induction is a significant contribution to the field. Additional studies are needed that draw on the workplace learning literature in order to further investigate and refine the proposed model for workplace learning uniquely suited to the field of early intervention. Drawing on the literature base of workplace learning, early intervention could expand existing professional development studies to include the informal and formal methods of learning that pervade the variety of early intervention workplaces and contexts in which early intervention is provided and may very well shape how agencies and organizations support their practitioners.

Launch a Theoretical Framework

This study also contributes to the field of early intervention by boldly proposing a theoretical framework for workplace induction in early intervention. No other framework for professional induction in early intervention has been presented in peer reviewed literature. The theoretical framework proposed in Chapter 5 is a modest draft intended to begin a conversation in the field. My aim is that it will spark additional studies that will build the literature base and result in a more robust understanding of professional learning and help research and administrators use effective and efficient induction means. Although four

participants is hardly a robust case, the small number of participants featured in this case and the inductive methods employed are considered sufficient to arrive at new theoretical concepts or the beginnings of a framework. The framework constructed from these data describes the experiences used by novice practitioners participating in experiential workplace learning mediated by peer coaching to develop competence and confidence in their use of evidence-based early intervention practices. Further grounded theory studies within early intervention induction could lead to revisions of the theoretical framework presented here, which should be considered a working draft. With more participants and more data, it is possible to continue this line of research to establish an "agreed upon" framework for considering workplace learning within early intervention, and perhaps even contribute to the evolution of workplace adult learning frameworks more generally. The limitations of this small study are described below.

Limitations

The findings from this dissertation, although instructive for the agency featured in the case and interesting to the field of early intervention, should be generalized with caution. The small number of participants included in the study are but a handful of perspectives from which to construct new knowledge. This study is not designed to arrive at a new theory of workplace learning or theoretical framework for adult learning generalizable across context and disciplines. Although I was able to draft a theoretical framework from the data, several limitations constrained this study, including the exceedingly small sample size, the absence of participant interview recordings, a narrow focus on data collection, and lack of time to fully engage the participants in theorizing with the data.

Small Sample Size

This study is intended to provide a small theoretical contribution to the field of early intervention professional induction, as well as a methodological contribution. The four cases could potentially represent the beginnings of a larger investigation of the perceptions and experiences of novice practitioners navigating induction, but at this time findings should be cautiously considered before being applied to the broader field of early intervention professional development or professional development in other contexts. Contexts that rely heavily on imbedded workplace learning as the context for professional induction or professional development are likely to find this study more useful than those that do not.

The small sample size included in this study limits the power and generalizability of the findings. Theoretical saturation was not achieved, and a larger sample size would have provided additional assurance that the patterns and trends perceived by the practitioners are not anomalous. Future studies can add to the knowledge base that has been established in this study and should contribute to a more refined understanding of what practitioners perceive as they navigate their induction process (i.e., more data will allow for the emergence of more nuanced theoretical findings).

Interview Recordings

Another limitation of the study results from not having recorded the practitioner interviews/joint analysis sessions. I made the decision not to record because I felt that it would intimidate the participants from openly sharing their stories and actively participating in the analysis. Since all participants were new to conducting research, they were somewhat inhibited in their willingness to co-analyze data with me. Recording the sessions may have further inhibited their participation with respect to the analysis. In retrospect, it may have

been helpful to have recorded and transcribed the participant interviews and subsequent discussions where researcher and participant partnered to generate meaning from the data. Transcripts would have allowed me (the primary investigator) to focus on engaging each practitioner in more depth of reflection rather than dividing my time with taking notes on a participant's remarks manually. Transcripts would also ensure a research study initially captures all of the data provided by a practitioner rather than immediately filtering this data through the researcher's lens. Recording interviews in future studies would enable researchers to capitalize on the wealth of data provided by participants beyond what one researcher can capture in real-time.

Perspective of the Coach Excluded

Of primary importance to this study was to bring the voices, experiences, and perspectives of the induction participants to the foreground and theorize about how and why they developed competence and confidence. It may have also been helpful to gather information from the coaches about their experiences participating in the induction process and specifically how they came to make decisions about how to promote the active participation of the participants. Given the importance of the role of the participant and the coach in the proposed framework, it seems important to try to understand more about how the coach mediated the experiences and the understanding of the participants. Though this was beyond the scope of this study, having collected those data could have enabled me to analyze another aspect of the induction experience as a future study and perhaps would have corroborated or challenged some of the findings I presented within this study.

More Participant Analysis

In this collaborative method of employing grounded theory, I wish that I had the foresight and the time to engage each participant individually and collectively more in the process of theorizing with the data. I intended to engage all four participants in collective analytical conversations to continue to produce enduring themes and relationships between and among those themes that eventually formed the basis of a theoretical framework for promoting practitioner competence and confidence within workplace-based professional development experiences they lived through. In the end, the participants became busy and scheduling collaborative time together was a burden that would have pulled them from their core work of serving children and families. The practitioners and I were able to get together one time to discuss the written presentation of the data in Chapter 5 and refine the proposed framework. Although the novice practitioner individually contributed to the development of the theoretical concepts as we analyzed and discussed the data, the theoretical framework was constructed during the writing process as I continued to redraft the relationships between and among the concepts. After drafting Chapter 5, I pulled the novice practitioners together for a collaborative discussion of the presentation of the findings and discussion. The conversation was guided by four core question with several prompts (Table 4).

Table 4
Questions Used to Solicit Participant Feedback on the Theoretical Framework

Core Questions	Prompts
How does the data presented about you ring true?	• What experiences were left out that would have better illustrated a point? • What was represented differently than you experienced
How do the theoretical concepts and the framework described in the analysis explain your experiences?	• What are the strongest features • What are the weakest features? • What can you add to the analysis now that you have had distance from the experience, the data, and the analysis process?
How well does the discussion explain your perceptions?	• What questions does the report raise for you?
What else do you have to add?	

This collaborative conversation resulted in key changes to the focused coding, themes, and theoretical framework. It reminded me of how helpful it would have been to have had many minds at work throughout the process the theorize and mature the ideas while staying close to the data the participants produced. For example, two of the participants were nagged by how far away competence was from the role of the participant in the model. They thought there was a tighter relationship than what was being represented. Having lived the process all four agreed. I would have had no way of perceiving that nuance had it not been for those that were immersed in the experience. They were also responsible for conceptualizing that the setting (experiential learning opportunity), the role of the coach, and the role of the participant were all part of setting the larger context for the learning experience rather than separate concepts as I had originally proposed. Participants noted

which components of the analysis and the framework rang especially true for them and which parts represented a departure from their perceptions. They kept me and one another honest and ensure that the analysis emerged from the data. Engaging all the participants in the iterative process of theorizing that occurred concurrently with the writing process would have ensured that the theoretical concepts were grounded in data from the field, especially in the actions, interactions, and social processes of the participants, however the privilege of having them meet to review how our collective work came together and contribute to evaluating and refining my interpretation of their perceptions lends trustworthiness to the process and the findings.

Summary of Chapter

The research project presented not only allowed me to engage in a comprehensive and systematic exercise of investigating a phenomenon important to me, my agency, and to countless organizations across the country and perhaps beyond, but it also provided a unique and substantial contribution to the field of early intervention professional development. Despite the limitations, this study delved into the uncharted territory of professional induction, and, through the eyes of the participants, emerged with the beginnings of a theoretical framework for professional learning through workplace experiences.

Given the profound absence of studies that investigate professional induction in early intervention, and despite the demonstrated need as evidenced by the research to practice gap, the exploratory study presented here was sorely needed to examine the conditions and/or processes that impact practitioners' construction of competence and confidence. The field desperately needs studies that leverage analytical methods for arriving at theoretical concepts that can inform how we understand the production of competence and confidence within the

early intervention workplace. This study demonstrates the applicability of grounded theory methods and the power and potential of case study research in constructing a foundation for future streams of inquiry that advances our thinking about professional development and professional induction in the workplace. Grounded theory methods provided the tools needed to systematically investigate and interrogate the lived experiences of novice practitioners traversing their first months within the multidisciplinary field of early intervention. This small case study built on understanding practitioners' perceptions and reflections, provided a platform for illuminating the conditions that breed practitioner competence and confidence.

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Appendix A: Consent Form

Information to Consider about this Research

A GROUNDED THEORY STUDY OF THE PROFESSIONAL INDUCATION OF EARLY INTERVENTION PRACTITIONERS: PERCEPTIONS AND SUBJECTIVITY

Principal Investigator: Sarah Sexton
Department: Reich School of Education at Appalachian State University
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Description of the Study

I am conducting a study about the experiences and perceptions of novice early intervention practitioners who engage in orientation to evidence-based practices between June 2015 and December 2018. I am trying to understand how experiential learning opportunities and mentor coaching is perceived and used by practitioners to understand and develop implementation fidelity to evidence-based early intervention practices, including **natural learning environment practices**, a **coaching** interaction style, **family-centered practices**. The purpose of the study is to construct or revise a theory about how early intervention practitioners develop the knowledge and skills necessary to perform their jobs with fidelity to evidence-based practices. As part of the study, I plan to analyze the orientation logs you created during your orientation period, the weekly surveys you completed during the orientation process, and the observations that were completed by your coaches and yourself. In addition to those existing data, I plan to conduct multiple interviews with you to discuss the content of your orientation log and better understand your reflections about your experiences and how you used them develop confidence and competence in your job. The interviews will occur over multiple occasions (approximately 8 sessions) and will involve prolonged conversations (2 hours each time) where we work collaboratively to analyze your experiences.

Criteria for Participating

You are being invited to participate in this study because you worked with a FIPP early intervention fidelity coach between June 2015 and December 2018 when the experiential learning approach and coaching-in-action were key features of the orientation process. If you agree to be part of the research study, you are agreeing that your de-identified data collected during your work with your assigned fidelity coach and the content of your interview as well as your data analysis may be used in a doctoral dissertation and potentially in a published study.

Benefits

There are no direct benefits to individual subjects for participating in this study. Benefits of the research to the field of early intervention are potentially numerous. This study has the potential to inform us about the perceived impact of specific learning experiences by early intervention practitioners who are focusing on using evidence-based practices. The results could potentially lead us to develop a more efficient professional development support system for staff members who benefit from concrete learning opportunities, modeling, and reflection in action. The results could have financial benefits for organizations by maximizing the impact of professional development, allowing practitioners to reach fidelity sooner, and increasing practitioner independence and productivity. It could also provide us with additional hypotheses about the conditions under which adult learning is accelerated and may lead to additional studies on a larger scale, across multiple disciplines, and within different types of organizations.

No direct compensation will be provided. Participants are permitted to use paid work time to engage in the extensive weekly interviews.

Risks

Risks to participants are minimal. Risks are limited to any personal anxiety that may be felt by participants knowing their orientation documentation is being studied as part of a research project. Participants will be asked interview questions to clarify information provided on orientation documents and will be asked to analyze the experiences in collaboration with the researcher. Interviews will take a significant amount of time and collaboration. Interviews are expected to last two hours each and will occur weekly over the course two months, while your data are being analyzed. The interviews will not be audio recorded. The documentation generated from our collaborative analysis will be kept confidential and stored in a location separate from the participant's name or other identifying information. While all data will be kept and reported confidentially, with such a small number of participants the possibility exists that colleagues may be able to indirectly identify you as the source of the data. Participants who have questions about the risks can contact Sarah Sexton at the email address below.

Voluntary

Participating in this study is completely voluntary. Even if you decide to participate now, you may change your mind and stop at any time. Choosing not to include your data in a study will not exclude you from participating in the ongoing professional development at the Family, Infant and Preschool Program and will not impact your employment.

IRB

This research project has been approved on August 23, 2018 by the Institutional Review Board (IRB) at Appalachian State University. This approval will expire on August 22, 2019 unless the IRB renews the approval of this research.

If you have questions about this research study, you may contact Sarah Sexton at sarah.sexton@dhhs.nc.gov, or at 828-433-2661 or the faculty advisor for the study Beth Buchholz at buchholzba@appstate.edu. Questions regarding the protection of human subjects may be addressed to the IRB Administrator, Research Protections, Appalachian State University, Boone, NC 28608 (828) 262-2692, irb@appstate.edu

If you have read this form, had the opportunity to ask questions about the research and received satisfactory answers, and want to participate, then sign the consent form and keep a copy for your records.

_____
Name

_____ _____
Signature Date

Appendix B: IRB Approval

INSTITUTIONAL REVIEW BOARD
Office of Research Protections ASU
Box 32068
Boone, NC 28608
828.262.2692
Web site: http://researchprotections.appstate.edu
Email: irb@appstate.edu
Federalwide Assurance (FWA) #00001076

To: Sarah Sexton Doctoral Program CAMPUS EMAIL

From: Dr. Andrew Shanely, IRB Chairperson

RE: Notice of IRB Approval by Expedited Review (under 45 CFR 46.110)

Date: August 20, 2019

STUDY #: 17-0237
STUDY TITLE: A Grounded Theory Study of The Professional Induction of Early Intervention Practitioners

Submission Type: Renewal
Expedited Category: (5) Research Involving Pre-existing Data, or Materials To Be Collected Solely for Non-research Purposes,(7) Research on Group Characteristics or Behavior, or Surveys, Interviews etc.

Renewal Date: 8/20/2019
Expiration Date of Approval: 8/19/2020

The Institutional Review Board (IRB) renewed approval for this study for the period indicated above. The IRB found that the research procedures meet the expedited category cited above. IRB approval is limited to the activities described in the IRB approved materials, and extends to the performance of the described activities in the sites identified in the IRB application. In accordance with this approval, IRB findings and approval conditions for the conduct of this research are listed below.

Study Regulatory and other findings:

The IRB determined that this study involves minimal risk to participants. NOTE: Beth Buchholz' CITI training will expire on 08/31/2018

If you are storing any data outside of the DHHS location and must comply with the data projections requirements from DHHS, the IRB encourages you to contact Appalachian's IT Security department to review your local storage location. https://security.appstate.edu/

All approved documents for this study, including consent forms, can be accessed by logging into IRBIS. Use the following directions to access approved study documents.

1. Log into IRBIS
2. Click "Home" on the top toolbar
3. Click "My Studies" under the heading "All My Studies"
4. Click on the IRB number for the study you wish to access
5. Click on the reference ID for your submission
6. Click "Attachments" on the left-hand side toolbar
7. Click on the appropriate documents you wish to download

Approval Conditions:

Appalachian State University Policies: All individuals engaged in research with human participants are responsible for compliance with the University policies and procedures, and IRB determinations.

Principal Investigator Responsibilities: The PI should review the IRB's list of PI responsibilities. The Principal Investigator (PI), or Faculty Advisor if the PI is a student, is ultimately responsible for ensuring the protection of research participants; conducting sound ethical research that complies with federal regulations, University policy and procedures; and maintaining study records.

Modifications and Addendums: IRB approval must be sought and obtained for any proposed modification or addendum (e.g.,, a change in procedure, personnel, study location, study instruments) to the IRB approved protocol, and informed consent form before changes may be implemented, unless changes are necessary to eliminate apparent immediate hazards to participants. Changes to eliminate apparent immediate hazards must be reported promptly to the IRB.

Approval Expiration and Continuing Review: The PI is responsible for requesting continuing review in a timely manner and receiving continuing approval for the duration of the research with human participants. Lapses in approval should be avoided to protect the welfare of enrolled participants. If approval expires, all research activities with human participants must cease.

Prompt Reporting of Events: Unanticipated Problems involving risks to participants or others; serious or continuing noncompliance with IRB requirements and determinations; and suspension or termination of IRB approval by external entity, must be promptly reported to the IRB.

Closing a study: When research procedures with human subjects are completed, please log onto our system at https://appstate.myresearchonline.org/irb/index_auth.cfm and complete the Request for Closure of IRB review form.

Websites:

1. PI responsibilities: http://researchprotections.appstate.edu/sites/researchprotections.appstate.edu/files/PI%20Responsibilities.pdf

IRB forms: http://researchprotections.appstate.edu/human-subjects/irb-forms

Date	Day	Time of Activity	Duration of Activity (minutes)	**Reflections** (include your personal reflections on how the experience is impacting your attitudes, beliefs, knowledge, or utilization of the practices; your aha moments would go here, i.e., what are you learning and how are you learning it?)	Participant's Open Coding and Reflections	Date discussed

Appendix C: Sample from an Orientation Journal with Participant's Open Coding

Name: Participant 3

Date	Day	Time of Activity	Duration of Activity (minutes)	**Reflections** (include your personal reflections on how the experience is impacting your attitudes, beliefs, knowledge, or utilization of the practices; your aha moments would go here, i.e., what are you learning and how are you learning it?)	Participant's Open Coding and Reflections	Date discussed
12/4/2017	1	8:30	60	This was a great way for me to start my first day. It allowed me to see the multidisciplinary team come together to address a concern that [my colleague] had for a child in which she is serving. It was helpful to see the team come together and collectively discuss this situation and it provided [my colleague] with more ideas/activities to help address the child's sleeping issue that she brought to the group. This interaction and discussion amongst the group is crucial in ensuring every child and family is getting the necessary supports to meet their goals. It was also extremely helpful for me to see the way in which new referrals are assigned. The trust and faith that we all have in each other is incredible, and the way that the referral assignment process works speaks volumes about what you are doing here at FIPP for not only each individual child and family, but employees as well.	It made me feel excited and hopeful for my future as a team member at FIPP. I felt that the team showed a lot of trust in one another's abilities to serve families and to share professional information with one another.	11/8/2018
12/4/2017	1	12:00	40 minutes	The child has had feeding issues and we observed her mealtime in order to see the progress that she has made since her last visit. This allowed me to see a coaching first-hand. It felt completely natural and truly allowed the parents to be at the center of the decision-making/goal setting/plan making in regard to their child. It also allowed [my colleague] the opportunity to give her professional input when necessary. Coaching allows a receptive and open interaction between practitioner and families which also validates for the family that we acknowledge them as the expert on their child. I was also introduced to the CIAP manual beforehand which broke down how each visit should go. 1. Revisit 2. Do and Review 3. Plan the activity for between visits and the next visit. This was very clearly done in my visit with and allowed for a smooth and orderly flow of time spent with the child and family.	Intimidated: I was excited to see coaching in real-life but intimidated at the thought that the expectation for me is that visits should look the way this one did. I was intimidated, but at the same time energized at the thought that I will be like that one day. I felt ready to take on the challenge and grow. I felt like "I got this!"	11/8/2018

Date	Day	Time of Activity	Duration of Activity (minutes)	**Reflections** (include your personal reflections on how the experience is impacting your attitudes, beliefs, knowledge, or utilization of the practices; your aha moments would go here, i.e., what are you learning and how are you learning it?)	Participant's Open Coding and Reflections	Date discussed
12/5/2017	2	1pm	30 minutes	This visit was a little different from a "typical" home visit. This family has twins that are served by FIPP. Teressa was the PSP for these children, and once their medical needs were met, [my colleague] became a better match for this family and now has these children on her caseload. However, these two babies became very sick and another professional contacted Teressa to see if it was possible for her to check on the children and listen to their breathing. This family does not speak English so we used an interpreter. Teressa coached the mother and aunt on breathing treatments. Once the aunt gave the treatment, she very obviously struggled and was frustrated. I could tell by her body language that she was irritated. Teressa had her persevere and we continued on. I was really curious as to what point would I intervene and offer some guidance/assistance in the event that this were my visit that I was leading. This visit was helpful for me because I found that there's more than ONE right answer. Teressa had kept her distance and had the aunt persevere to see how the mother would respond. As an outsider looking in, and being new to the field, I didn't understand that during the visit. I felt that if it were me, I would have acknowledged that the aunt was frustrated, and asked for her feedback on what felt comfortable and what didn't, which is also what [my colleague] said that she would have done. What I took away from this visit though, is that there isn't always one right answer or one way to handle a situation. Everyone has a different working style and therapy with each provider will look a little different.	I thought to myself in the moment that I was irritated because she wasn't doing it how I would have, but then again, what do I know? This was confusing for me because I had my own thoughts and ideas and they were confirmed by one of my mentors, but my other mentor went in a different direction and I trust and respect her too. This is what lead to believe that there is more than one right answer. I have to figure out what criteria I am going to use to make decisions about how I interact with families. I can't just memorize how others are doing it. I can learn from others, but I need to set my own path.	11/818

Date	Day	Time of Activity	Duration of Activity (minutes)	**Reflections** (include your personal reflections on how the experience is impacting your attitudes, beliefs, knowledge, or utilization of the practices; your aha moments would go here, i.e., what are you learning and how are you learning it?)	Participant's Open Coding and Reflections	Date discussed
12/5/2017	2	4:15pm	30-40 minutes	During this visit I observed the mother and child interacting in a way that was not conducive to meeting the child's goals. I left the visit and my first note/thought for [my colleague] was that interaction because I wanted to get her input. She also had the same thoughts on the interaction, and we were able to discuss the way that she handled it. These instances are the ones that I am most intimidated by because I want to be able to offer guidance/ allow the caregiver to reflect on what they are doing and its effectiveness in a way that does not come across as arrogant or rude, because at the end of the day, we want to acknowledge and build their competence/confidence and a bad interaction could really make that difficult. It was helpful for me to talk this out with [my colleague] and discuss some strategies that can be used in an instance like that. "What do you think [the child] is learning in that instance?" It is important to make it child-directed rather than parent-directed as well. -- This is something I really struggle with. Coaching is a crucial aspect of who FIPP is, and what we are about. However, I feel like I may need extra assistance/guidance on coaching in a way that I feel comfortable with. Reflect on my interview before I was hired and thinking about some of my answers, I felt stupid. I am starting to see how off I was. This is a little different and a lot harder than I thought.	Lesson worth learning. This observation helped to give me insight on how to handle a situation that would be otherwise really uncomfortable for me. I don't want to avoid the tough conversations and seeing this situation helps prepare me for when my turn comes. I want to do well.	11/27/2018

Date	Day	Time of Activity	Duration of Activity (minutes)	**Reflections** (include your personal reflections on how the experience is impacting your attitudes, beliefs, knowledge, or utilization of the practices; your aha moments would go here, i.e., what are you learning and how are you learning it?)	Participant's Open Coding and Reflections	Date discussed
12/15/2017	12	10:15	1 hour	We came to the childcare center to support the teacher with a child around mealtime. We planned to see how the chair assisted the child in eating. She has stiff and rigid movements in her hands and the goal was that the chair would give her the support that she needed so that she wouldn't have to focus so much energy keeping her body upright in the way that it needs to be in order for her hands to relax so that she could use a spoon to feed herself. Prior to the chair she was just cramming as much food as possible into her mouth at once with her hands, and we were hoping to see this improve and for her be able to work towards using a spoon. She had absolutely no interest in using the spoon and Rhonda coached the teachers to encourage the use of the spoon. She did eventually grab her spoon, and observing the movements with the spoon it seemed as if she just did not have the coordination to handle the spoon. The teachers say that she is throwing the spoon (which I am sure is the case sometimes), however to me, it mainly looked as if she didn't have the coordination to hold it and it looked like it was throwing her off balance. The child is moving up to a different class and we spoke to the teachers of that class to work on establishing that relationship, tell them what we're all about (NLEP etc), and they had mentioned to us that the teachers in the child's current class are not finding the chair helpful. As we left we spoke to the director (Rhonda does a great job of keeping admin in the loop on what is going on with this child which I think is GREAT!) and we found that the teachers are not consistently using the chair. This could be a huge reason for why it isn't helpful. The chair needs to consistently be put to use in the child's daily activities to increase its effectiveness. We have spoken to each other about bringing in an OT/gathering some information from an OT about how to help her with the fine motor component/ overcramming of food into her mouth.	I felt overwhelmed at the thought of having to do this one day myself. Building that relationship with the director and sharing specific knowledge around what is being done to support a child was intimidating for me. Seeing Rhonda eager to do it and so confident made me want to have that same confidence one day.	11/27/2018

Date	Day	Time of Activity	Duration of Activity (minutes)	**Reflections** (include your personal reflections on how the experience is impacting your attitudes, beliefs, knowledge, or utilization of the practices; your aha moments would go here, i.e., what are you learning and how are you learning it?)	Participant's Open Coding and Reflections	Date discussed
12/19/2017	16	8:15	45 minutes	On this visit, I was interested to see how [my colleague] supports teachers in the classroom. When I first learned about coaching, I thought that each visit would look so "cookie-cutter" and that it wouldn't allow the opportunity for each individual to support families in their own way. I was very wrong. While we still all have the same principles and practices around the way that we support families, coaching does allow flexibility in what that looks like and does allow an element of individuality in how it is done, which I really appreciate. I have enjoyed observing [my colleague] supporting teachers in the classroom setting and wanted to see how [my colleague] did that. The room was chaotic at first, and I got the vibe that the teacher had a hard time trying to focus her time on [my colleague] and what she was doing with the child, so I felt like [my colleague] did a lot more interacting directly with the child than what is typical. At the end of the visit she requested to push their visit back later in the day, because the time in which she was coming, it was just too hard for her to focus on [my colleague] and [the child]. After we left I shared with her in regards to this and the teacher's response and body language was that I felt it would be beneficial for her and the teacher to have a conversation about [my colleague]'s role in the classroom. Something I have noticed with [my colleague], is that she is phenomenal with supporting teachers where they are at. I feel that teachers in a classroom feel so comfortable in her presence and like she's just one of them, and I believe that is because she does an excellent job at assuring teachers that their classroom and all of the children in their classroom are the top priority. She does this supporting the teachers in whatever they need to do at that moment. This lets teachers know and feel comfortable to go and do what they need to do, without feeling like they must sit right beside [my colleague] and focus solely on that child for however long the visit lasts. I know that [my colleague] doesn't expect that the teacher focuses solely on her, but I felt as if the teacher felt otherwise.	Confident in the progress I am making. I felt confident that I could recognize mismatches in the practices when I saw them as well as have a conversation with my colleague about it and communicate that mismatch or thought to her. I was learning that it is expected that we all be reflective with ourselves and one another. Seeing [my colleague] ask for feedback sent me a clear message that learning and improving is part of the organizational culture and expectation. What could have been an uncomfortable situation, wasn't.	11/27/2018

Date	Day	Time of Activity	Duration of Activity (minutes)	**Reflections** (include your personal reflections on how the experience is impacting your attitudes, beliefs, knowledge, or utilization of the practices; your aha moments would go here, i.e., what are you learning and how are you learning it?)	Participant's Open Coding and Reflections	Date discussed
12/19/2017	16	1:15	60	This is the very first visit that I have led all by myself and I honestly feel really good about it. I've spent a lot of time soaking up what everyone does on their visits. How they talk to families, how they do joint planning, how they provide feedback, how they model etc. I took this time to try to apply all of this to the best of my ability. [my colleague] and I planned in the car prior to the visit. She brought me up to speed with what the between visit plan was and what they had worked on last time. The between visit plan was for the parents to use the strategy that [my colleague] had taught them to help the boys sit. I started off by asking them how that had been going. They explained to me that it was going well and I asked her if she could show me what it looked like. She did, and then I wanted to build upon that skill and what they were already doing. I asked them what else they could be doing during that time, and they weren't sure and asked for my input. I offered the idea of having them use their hands while sitting, and the idea of holding the bottle while sitting. I asked them how they felt about that and she shared with me that she was nervous that he would fall over. I asked her if it was okay if I modeled this for her. ([my colleague] shared with me that this family typically always need to be modeled for.) I modeled for her what I was thinking. I made sure to explain to her what I was doing, as I was doing it, and share with her the benefit/ the skills he was building by doing so. I then asked her if she wanted to try it and she did. I noted that the child needed to be sitting flat on his bottom, which I felt nervous about doing because I didn't want to sound mean, but I felt that I did it in an appropriate way and [my colleague] agreed. I tried to joint plan for the next visit but felt like I somehow got off track and [my colleague] stepped in. Overall, I feel really good about this visit, especially considering this was my first ever time leading and I was able to do so for almost an entire visit.	I felt like I was on top of the world. I hit my peak confidence from this visit and felt like getting to fidelity would be a breeze from that point. Having this success made me feel like I could do anything.	11/27/2018

Date	Day	Time of Activity	Duration of Activity (minutes)	**Reflections** (include your personal reflections on how the experience is impacting your attitudes, beliefs, knowledge, or utilization of the practices; your aha moments would go here, i.e., what are you learning and how are you learning it?)	Participant's Open Coding and Reflections	Date discussed
12/20/2017	17	12:30	60	After watching video of this child a while back, I really wanted to go with [my colleague] and see the progress that has been made. This visit was to address feeding, which is why Danielle came out with [my colleague]. The child has become very frustrated at mealtimes, overall she has had some behavioral issues, which are stemming from her inability to communicate. [my colleague] brought picture cards to introduce to the caregiver as a means for her to communicate since she doesn't quite have the words. I was interested to see how well these worked. As I watched her eat, it was very clear to me that she didn't have the coordination to do it herself, but she kept persevering and trying. She would rake the food up the side of the plate, and it would eventually rake over the edge, onto the table. Initially I thought she was just playing with her food, but as I continued observing, it was clear to me that the food was being raked over the edge in the attempt to get it on her spoon. The grandmother didn't allow her much time to do it herself before she took the spoon and tried to feed her which frustrated the child, and sent her into a rage. [my colleague] and Danielle introduced the idea of giving her longer wait time. This made a big difference but there were also many other issues present during the feeding which [my colleague] and Danielle helped the grandmother develop strategies to help address. This was a high-stress visit because the child continued to get upset. But it was really helpful for me to see the introduction of the picture cards to be used during meal times as well as the many other strategies that were introduced. [my colleague] and Danielle handled this high-stress visit so well though, they were extremely encouraging to this grandmother, because it was very clear that she was so overwhelmed. Sometime you have to be satisfied with small progress at each visit.	I was Intimidated by the idea of having to maneuver a visit like that with a secondary service provider one day. I was impressed at their ability to work so well together in such a high stress situation. I thought about what I would be like in their shoes and how well I could have executed that.	11/27/2018

Date	Day	Time of Activity	Duration of Activity (minutes)	**Reflections** (include your personal reflections on how the experience is impacting your attitudes, beliefs, knowledge, or utilization of the practices; your aha moments would go here, i.e., what are you learning and how are you learning it?)	Participant's Open Coding and Reflections	Date discussed
12/29/2017	26	2:00	90	I didn't feel comfortable giving the assessment until I saw it being done first. Karen completed the RAMP for me, while I took it all in. She did the RAMP in a way that was much different from how I would have done it if I hadn't seen it before. Karen did an incredible job of really honing in on the mother's priorities and gaining more information on what her daily routines looked like. Everything that I noted in my head, Karen had the same thoughts/ideas as well which made me feel good because I'm thinking on the right track. For me, I felt like I needed to fill in every box in the RAMP II, but really that isn't nessecary. Karen was able to gain plenty of information by honing in on what the mom's priorities were and really just building on what the mom said and taking it a step further to understand more. My wheels are already turning on how I can support this family and the RAMP is super helpful in gathering some great information on the families needs and priorities and in the context of their everyday activities.	Demeaned-- This was the first day that I got angry with a colleague and I was made to look stupid in front of a family. I wondered how I was supposed to gain credibility.	12/6/2018

Date	Day	Time of Activity	Duration of Activity (minutes)	**Reflections** (include your personal reflections on how the experience is impacting your attitudes, beliefs, knowledge, or utilization of the practices; your aha moments would go here, i.e., what are you learning and how are you learning it?)	Participant's Open Coding and Reflections	Date discussed
1/4/2018	31	3:00	60	My goal for this visit was to start the visit and end the visit. I wanted to hear how they had been doing with the strategy we provided last time, as well as what they wanted to work on for the next time. This family is AWESOME at practicing the strategies that they have been given. However, this time, when I asked how it had been going, she shared that they weren't able to practice because the boys had been sick. This threw me OFF. I turned it over to [my colleague] because I just didn't know where to go with it at that point. This was helpful though because there have been times where a family hasn't been able to practice for some reason, or just didn't because they didn't, and I need to learn where to go from there when that is the case. [my colleague] did an incredible job at speaking with the family about the twins and how they have been doing. She made sure that they had access to transportation to get the boys back to the doctor if needed, how they would know if the boys needed to go back to the doctor etc. From there, she transitioned into the sitting that we had talked about prior. They had a conversation about sitting and how it was still a priority for them, then she coached the mom through some ideas of when they could practice sitting. Mom shared with us that the boys seem to be more interested in food, and that they closely watch their parents eat their food, so she may want to start feeding them real food. [my colleague] shared with her, that this age was a great time to start introducing solids, and that this was also a great opportunity for the boys to continue practicing sitting. She then joint planned and scheduled the next visit around mealtime. I felt really bad after this visit because I just stopped in my tracks once the mom said that they were unable to practice. Naturally, I wanted to ask about the boys' health and how they had been doing, but I didn't know what was appropriate and what was not. I should have gone with my gut and just started talking with her about it, but I still don't know that I would have known how to/if I even needed to try to bring it back to the sitting. Watching this visit unfold was helpful for me in the future when the between visit plan doesn't go as planned, because I know that it's possible it will happen more than I will ever care for it to.	Discouraged-- I felt frustrated because my joint plan fell through and [my colleague] had to step in and complete the visit. I had just had a confidence boost from leading almost an entire visit with the family prior and I did it well. I went into this visit pumped up and with high expectations and this visit didn't meet those expectations that I had for myself.	12/6/2018

Date	Day	Time of Activity	Duration of Activity (minutes)	**Reflections** (include your personal reflections on how the experience is impacting your attitudes, beliefs, knowledge, or utilization of the practices; your aha moments would go here, i.e., what are you learning and how are you learning it?)	Participant's Open Coding and Reflections	Date discussed
1/10/2018	37	4:30	90	I had expressed to Teressa at one point about how much I loved babies and how I'm interested to see what a visit with a small baby looked like. I never anticipated anything coming from this because I'm a teacher, and that is not "what teachers do." Teressa gave me this opportunity to go out with her and see how the NIAAP is utilized when supporting a family with an infant. It gave the parents a little boost of confidence because they were able to identify a lot of these things that they might not had realized the significance of before. This family is involved in an open DSS case, and the mom's ultimate goal was to get her daughter back in the home. It was helpful to see Teressa home in on more specific goals/outcomes. Teressa started by giving her a time frame of 6 months to work with. She began coaching her based on this timeline such as " What do you know about what babies might be doing at 6 months?" She shared with her a few things such as sitting, exploring the idea of crawling etc. Teressa had her home in on which of those she wanted to focus on, and they made that one of her goals. I love that FIPP and my very short EI journey so far, has challenged the way I view many things. Knowing this mother's open DSS case, as well as her past history of losing three children, truthfully, I had a fairly negative assumption of what this mom might be like. However, from my internship experience, I changed a lot too in the way that I view things, which was evident in my thoughts on something that Teressa had shared with me. She had told me that while her child was in the NICU, she was only allowed to see her for an hour a day, and only with a security officer present. At the beginning of my internship I would have said "Good. That's how it should be." I was very ignorant. Once Teressa told me this, I was shocked that they would treat a mom this way and found it to be very disturbing. So I had evolved in my way of thinking, but still not enough, which is evident by my assumption of this mom that I tried to suppress. Meeting this mom truly made me feel like the absolute scum of the earth because I very quickly saw that she, like everyone else, made a mistake and this one just happened to result in her child being taken away from her. She was so responsive to her wants and needs, and there is no doubt in my mind the love that this mom has for her child. She is just involved in this vicious cycle that she wants so badly to break, and I am over the moon about FIPP being a part of this mom's journey, because I know that we can help her break this cycle by increasing her confidence and competence that she has had stripped away from her because of experience with other agencies. I am ashamed of myself for ever feeling the way I did prior to this visit. I find that while it's so important to really be taking in FIPP's approach to EI, and all of the paperwork and	This is something to pay attention to--I felt ignorant and embarrassed because I didn't give the family a chance. I thought that I had evolved from my internship but I realized that it wasn't nearly enough. I realized my judgmental thoughts could have a true impact on my ability to support families in building their confidence and competence. It would have made me no different from any other agency that had beat this mom down time and time again. Seeing [my colleague]'s patience really helped me see that I have to change my outlook and give parents a chance and truly believe in them, or I will never be able to help them. This was a life-changing observation for me.	12/6/2018

Date	Day	Time of Activity	Duration of Activity (minutes)	**Reflections** (include your personal reflections on how the experience is impacting your attitudes, beliefs, knowledge, or utilization of the practices; your aha moments would go here, i.e., what are you learning and how are you learning it?)	Participant's Open Coding and Reflections	Date discussed
				procedural information, this type of reflection and learning is just as important. These experiences and reflection allow me to grow and evolve into a better professional in this field and a better support to the families that I come into contact with.		
1/10/2018	37	1pm	90	This was my first visit with a child with autism. It was helpful to see communication support with a child with ASD, because typically this is something that a child with ASD might need some support on. This child "was nonverbal" for a while, and has recently began using her words to communicate. She started using one word utterances and she is now putting two and three words together to communicate throughout her daily activities. The focus of the visit was to support her mom in encouraging Madeline's participation in clean-up time. Her goal is for her to clean up her clean up toys after she is done playing with them, before moving to her next activity. Some time was spent on encouraging clean-up time, and madeline did really well with that, so the activity setting shifted when she went to the kitchen and wanted something to eat. Something I noticed was that 90% of the questions that the mom asked her child, were yes/no questions. This doesn't allow Madeline the opportunity for her to speak other than to say yes or no. She also did not allow Madeline any wait time, which doesn't give her the opportunity to work on communication or make choices of her own.		

Date	Day	Time of Activity	Duration of Activity (minutes)	**Reflections** (include your personal reflections on how the experience is impacting your attitudes, beliefs, knowledge, or utilization of the practices; your aha moments would go here, i.e., what are you learning and how are you learning it?)	**Participant's Open Coding and Reflections**	**Date discussed**
1/11/2018	38	9:15	60	The purpose of this visit was to observe snack time because this child has some sensory preferences that make mealtimes difficult. He also has some behavior concerns that Danielle has supported the caregivers with. The children were having a rough day, so they started snack early and we only caught the tail end of it. However, it turned into a great opportunity to support the teachers with his behaviors. He saw another child get some goldfish. They use these as backup when a child's parents or caregivers didn't pack enough snack. He became very upset when he was told that he couldn't have goldfish. The teachers used the if-then statements that Danielle shared with them prior, however, they put a LOT of pressure on the child by repeating it over and over again. We sat back and observed the teachers' interactions with the children, as they addressed other children in the classroom and their needs. She provided another child with choices when he wanted more snack. Danielle had the teacher reflect on that, and she was able to realize that this would be a great strategy to use with Chance as well. I remember the specific day in college that I learned about providing children with choices. It's incredible to see the difference it makes with children, and it can be used across the board. I've seen it used with almost every practitioner I've observed and I love it because so many people don't see children as independent beings. Children have bad days just like adults do, and children should be given choices to allow them to be the little individuals that they are.	Surprised/impressed--This was exciting to see a strategy that I had learned about in college put to use in this professional capacity. I was challenged in college to see children in a new light-as independent beings. I had just struggled to understand how to give children a sense of independence without letting them "run the show." This strategy was exciting for me because it gave me a way to do that.	12/6/2018
1/30/2018	58	3:30	60	This mom has been extremely focused on motor activities, and most specifically, sitting. My goal for this visit was to 1. survive 2. support this mom in seeing the bigger picture. I wanted to support her in understanding all of the areas of development that are engaged/can be engaged in the sitting position and I think I did very well with the suggestion that I chose to achieve that. I reflected on her between visit plan and she told me that it was going well. At this point, [twin A] needs more support in his gross motor movements. I asked her what she would like them to do while sitting. She was not sure, so I offered an idea to her. I suggested that the boys sit face to face and asked her how she felt about that. She said she thought it was I anticipated that the boys would really enjoy looking at each other face to face and engage with each other by "communicating/" exploring each other with their hands. Just as I expected, that is exactly what they did, and they enjoyed it even more than I thought they would which was so exciting. [Twin B] immediately began squealing, smiling, and laughing. It was the sweetest sight. [Twin A] was a little more reluctant but came around and he and his brother began taking turns going back and forth.	Confident in the progress I'm making. I immediately realized that I had taken away an opportunity for this mom to reflect and made a point to not do that for the duration of the visit. I felt that this visit showed growth in my coaching abilities because of this. I was reflecting in the moment and making changes to my	12/13/2018

Date	Day	Time of Activity	Duration of Activity (minutes)	**Reflections** (include your personal reflections on how the experience is impacting your attitudes, beliefs, knowledge, or utilization of the practices; your aha moments would go here, i.e., what are you learning and how are you learning it?)	Participant's Open Coding and Reflections	Date discussed
				[Twin B] was much more excited, but they both went back and forth. [Twin B] also reached out to touch his brother. It made me SO happy to see them have this interaction. His mother was laughing and smiling as well. I then told the boys' mom all the good things that they were doing while sitting (to get her the full picture). I instantly regretted doing that, what I should have done was ask her what she thought they enjoyed or got form sitting together face to face. She could have had the answer, and if not, I could have coached her through it. I instantly knew I had messed up but made a point to really focus on not doing that in the rest of the visit. The boys did this for a few minutes until they got tired, and their mom laid them down on the floor. [Twin A] was on his belly and started kicking his legs. His mom said that he has been doing that a lot lately. I asked her what she thought he might want to do. She said that she thought he would want to start walking. I asked her what else he might want to do. She said she wasn't sure. I asked her if she minded me sharing something with her, she said sure. I told her that I think he looks like he's interested in crawling. With all that we worked on, I asked her what she would want to focus on for the next visit. She said standing. I then asked her when she could practice putting the boys face to face because she said she would start doing that. She said she would start Monday, I then asked her when she they could do it during their normal day and she said they could do that throughout each day. Next week we are going to work on standing and I am going to think on ways that we can practice their standing and in what everyday routines.	intervention based on my reflections and active decisions. I felt highly capable that I was holding my own and adjusting when needed. I am making great progress.	

Themes	Focused Coding	Initial Coding	Definition	Example from Log

Appendix D: Categories and Themes Constructed through Initial and Focused Coding

Below are the categories and definitions that were constructed during the initial coding phase. The categories were collapsed into broader themes during the focused coding process. The far right column provides a sample of data that generated the category.

Themes	Focused Coding	Initial Coding	Definition	Example from Log
Context for learning	**Administrative**	**Completing an Administrative activity**	*Practitioner notes that she engaged in an administrative activity that was not directly related to a specific direct service activity. The administrative activity is general in focus.*	We discussed the FIP-EI (practitioner fidelity checklist) point by point, which matched my goals for the week. We spent some particular time on the resources section, which was newer for me (P2, day 3).
		Reading	*Practitioner notes that she read professional material related to work.*	Read 2 chapters of *The Source for Pediatric Dysphagia* (P1, day 9).
		Completing Paperwork	*Practitioner engages in completing paperwork.*	I learned how to order a state car and request an enrollment package (P1, day 20).
	Hands on Action/Practice	**Conducting Visits**	*Engaging in conducting early intervention visits with families and children.*	I lead my first very challenging visit today. My coach did not jump in and I had to figure out how to help this parent identify what she was doing and could do to help her child engage in the identified activity. It took me a while, but I worked through it. Even though it was uncomfortable doing this on my own, it helped me figure out how to reach the mom and also helped me know that I can do it (P3, day 118).
		Planning Visits	*The practitioner and coach make a specific plan prior to the visit about each person's role during the visit, and/or the role of the coach in supporting the practitioner.*	My coach and I planned prior to the visit so that I would know what my role was and have a good idea of how to be successful (P1, day 2).
	Reflection	**Self-assessing**	*Practitioner evaluates her work against a specific set of standards.*	I watched a video of my home visit and reflected/assessed using the FIP-EI Checklist (P2, day 46).
		Journal writing	*Practitioner used the journal to engage in a reflective process. Practitioner indicated that the act of journaling prompted her reflection.*	Taking this time to think through why this process is taking so long for me is helpful. I think it boils down to my confidence. I don't feel as competent as everyone else

Themes	Focused Coding	Initial Coding	Definition	Example from Log
				to I take a back seat when at I possible. I do it to myself. I just need to put myself out there. (P3, day 112)
	Group/Collaborative Activity	**Engaging in discussion with colleagues**	*Practitioner notes having engaged in a discussion with a colleague either alone or as part of a group.*	I talked with one of my colleagues today about how I thought her practices might not be a match with what I am learning. The conversation made me nervous, but it also gave me the opportunity to talk through what I think I know and am learning (P3, day 10).
		Training	*Practitioner notes having participated in a one-time training event.*	DAY-C Training Overview of subtests, how to find the basal and ceiling and how to score (P1, day 17).
		Role-Playing	*Practitioner notes having participated in a role play with coach or a colleague.*	We took some visits that we had earlier in the week and role-played. This was somewhat helpful to me. I'm not sure it is as useful as I thought it would be, though. It is just as hard to be the parent, as it is to be the coach in this type of interaction (P1, day 15).
		Meeting	*Meeting with two or more other people to discuss practices, work on a project, or plan a work-related event*	I participated in a group discussion with [the psychologist] about teaching parents responsive strategies to keep children engaged. Longer engagement equals more opportunities to learn (P1, day 34).
		Meeting with Orientation group	*Meeting with coach and others enrolled in orientation for the purpose of reflecting on the process over the past week and planning activities, experiences, or priorities for the coming week.*	My coach and I met with [other practitioner] and her coach to talk about how things were going. It was good to see that I was not in it along. The same insecurities I was feeling, she was too. We decided that my coach needs to push me more or I will never come out of my comfort zone (P1, day 5).

Themes	Focused Coding	Initial Coding	Definition	Example from Log
Role of the Coach	**Planning**	**Facilitating planning**	*Coach asked the practitioner what she wanted to learn and how she wanted to learn it, and they developed a plan.*	It was helpful to see coach's thought process in planning visits (P1, day 1).
	Demonstrating/Modeling	**Leading the visit**	*Coach lead the visit so that practitioner could observe the coach in action.*	[Coach] led this visit. The child is similar to [child's whose visit I lead] both in diagnosis and in the competence of their caregivers. I decided that I would like to use [Coach]'s coaching in this visit and compare it to what I did with the other child and think about how I could apply those differences to make my practice more effective. We did a debrief during the drive to our next visit, and I was glad to talk with her about some specific examples of how to address parent concerns directly, incorporate responsive strategies, and not step on the toes of a very competent parent while doing so. We also talked about being very specific with regard to responsive strategies can lead to a more effective joint plan (P2, day 45).
		Jumping in	*Coach takes over part of a visit that the practitioner was leading.*	Coach jumped in a few places and instructed m on how she would proceed in a few instances. I found it very helpful (P1, day 2).
	Providing Feedback	**Providing feedback after the visit**	*Coach provided any of the four types of feedback after the visit.*	It was helpful to have coach give me some examples of other questions she could have asked and examples of how parts of the visit fit into the FIP-EI (P2, day 3).
		Provided feedback during the visit	*Coach provided any of the four types of feedback during the visit.*	I had some difficulty with knowing where to go next in conversation during the dressing activity. I appreciated Coach stepping in and providing assistance and information and explaining what she was doing. I would like to continue this (P1, day 2).

Themes	Focused Coding	Initial Coding	Definition	Example from Log
		Corroboration	*Coach agreed with practitioner or validated something the practitioner said or did. Coach confirmed for the practitioner that she was "on the right track."*	I cried a little during this conversation and didn't know exactly why, beyond being a little stressed about my performance so far. [Coach] encouraged me a lot by showing me how much I did already know (P4, day 53).
	Promoting Action/Practice	**Restraining from intervening**	*Coach intentionally holds back from providing information, reflection or assistance during a learning opportunity order to allow the practitioner to overcome a challenge on her own.*	Coach and I had decided that she would stay behind the camera and provide very little assistance to me so that I would not use her as a crutch (P1, day 16).
		Creating an Opportunity	*Practitioner perceives that the coach created an opportunity that the practitioner otherwise would not have had or did not have. The experience was seen as a special opportunity created by the coach.*	Having my coach trust me enough to let me develop a treatment plan based on the literature review I had done and the knowledge and skills I had been learning in orientation was life changing for me. This opportunity allowed me to do something I had not been able to do before and is responsible for my increased confidence and learning. She created an opportunity for me to be in charge, fill the role of a practitioner, and learn from my efforts (P2, day 16).
		Interacting Collegially	The learner and coach engaged in a collegial interaction where the coach was not coaching the learner but was learning with, or learning from the learner.	Coach and I went to the Assistive Technology Center and tried to decide what devices would work for a particular child. I got an overview of how the lending process works, but most importantly, I got to problem solve for issues of mobility that was stumping everyone. We were all on equal footing and it felt good (P2, day 4).
		Asking practitioner for help	*The coach asked or indicated to the practitioner that she needed the practitioner help.*	Coach ran out of ideas about how to help a child and I knew exactly what to do and was helpful. I learned I can do this. I learned I can be successful at this. I was a resource to my coach and I felt useful and valuable (P2, day 46).

Themes	Focused Coding	Initial Coding	Definition	Example from Log
	Prompting Reflection	**Prompting Reflection after visit**	*Coach asked reflective questions after the visit to prompt the practitioner to reflect on her role in the visit, the outcome of the visit, alternative practices. Reflection on action.*	I did a little bit better with trying to lead this visit but did not make it through the whole thing. I struggled with what kind of information to share to help this mother support her child and [Coach] had to take over. I realize I am using [Coach] as a crutch to bail me out when I get stuck. I also got to experience talking with a parent who has several thoughts on her mind and discusses them all at once before I can get a word in. [Coach] and I talked afterwards. She asked me some thoughtful questions and I realized how I need to refocus with her in order to stay on topic and stay in control of the visit (P1, day 20).
		Prompting reflection during a visit	*The coach asked reflective questions during the visit to prompt the practitioner to reflect on what she was doing or should be doing.*	During the visit my coach asked me how I will decide if she needs more information. This was a good prompt and it helped me stop and think about what else I know and what part of it needs to be shared at this time. I decided to straight up ask the parent what she knows so that I can fill in the gaps. I think I was making this harder than it needs to be (P3, day 96).
	Assigning a task	**Assigning a task**	*The coach or colleague designated by the coach assigns an activity to the practitioner. The activity was not jointly planned, or based on the practitioner's interests or identified priorities.*	[Colleague] requested that my role be an observer for this visit because he needs to re-explain his role and the way FIPP does therapy and have parent decide if they are still interested in services (P1, day 6).
	Offending the participant	**Offending the participant**	*Practitioner describes an interaction with her coach in a way that implies the coach's comments or actions offended or insulted the practitioner.*	Talking with my coach about the pacing of my orientation and scheduling of visits made me feel defensive and not fit for the job (P3, day 47).

Themes	Focused Coding	Initial Coding	Definition	Example from Log
Role of the Practitioner	**Helping Others**	**Helping a colleague**	*Practitioner describes having helped a colleague with a work-related task by providing information or expertise as a professional and not as a "learner."*	This was THE highlight of my week. It involved interdisciplinary problem solving and collaboration at a level I had not been a part of before. There are two SSPs involved with this child and family due to complex needs. During the visit, I noticed that the child produced a louder and stronger vocalization at one point when she leaned over her water table and her head was upside down. After the visit, while we were debreifing in the van I had a lightbulb moment. Jen talked about another time that she had noticed the child producing a louder vocalization when she leaned against the handle bars of her tricycle. breath support-problem solving as a team (P4, day 19).
		Providing coach with information or expertise.	*The practitioner notes having provided help or expertise to the coach because the coach asked for or indicated that she needed it.*	Coach ran out of ideas about how to help a child and I knew exactly what to do and was helpful. I learned I can do this. I learned I can be successful at this. I was a resource to my coach and I felt useful and valuable (P2, day 46).
	Observing	**Targeted observing**	*Practitioner observes another practitioner, the coach, or herself and analyzes it.*	My role was to observe a secondary support visit and take data. [Colleague 1] was the primary and [colleague 2] was secondary. Colleague 1 led the visit and cued [colleague 2] when she needed his support (P1, day 8).
	Actively Participating	**Leading part of visit**	*Practitioner takes a leadership role during part of a visit, activity, or event.*	My role for the visit is to do the joint planning at the end of the visit (P1-28, day8).
		Leading a visit	*Practitioner takes the lead in a visit for the first time.*	My role was to try to lead the whole visit. I actually made it through the whole visit (P1, day 16) .

Themes	Focused Coding	Initial Coding	Definition	Example from Log
		Conducting a solo visit Solo	*Practitioner completes a visit or IFSP meeting without a coach or colleague.*	This was a super awesome visit for a couple reasons. First and foremost, the boys gained weight which was a huge accomplishment. They had fallen off of the growth chart. I was so excited for them and I know they were happy too. I had them reflect on what they had been doing to get them where they are now. They were more persistent with the bottle feedings as well as they started adding formula to the baby food. As simple as it is, they were able to use a strategy to get them to take the bottles to also get them to eat the baby food, which I think was awesome. Once we got past the nutrition things, I was finally able to have a conversation with them about standing. This had been on our agenda for weeks and we were finally able to get to it which was exciting. First I asked them if they had ever stood them up before, and when he said yes I asked him what that looked like. He showed me and said he enjoyed being talked to, so I then asked how he could position him to where he can see his face better (which I now realize is coaxing). He decided he could turn him around to where he was looking at his face. I asked if he minded if I modeled for him how to get him to standing, and he was happy for me to do so. I explained to him what I was going to do, and that I would talk him through it as we went along, and wanted him to look and see how much support I gave. It was not an easy visit. I had to think on my feed (P3, day 130).
		Taking initiative	*Practitioner initiates a learning or practice opportunity, such as investigating a topic, volunteering to implement part of a visit, offering information, consulting with colleagues.*	I came in early on this day to make sure I felt prepared to take the lead on parts of visits later in the day particularly since I was a little unprepared yesterday (P2, day 4).

Themes	Focused Coding	Initial Coding	Definition	Example from Log
		Questioning/Push back	*Practitioner demonstrates curiosity by asking questions of her coach or colleague during the debriefing.*	I was getting frustrated, so I finally questioned my coach during the weekly orientation meeting about why she is not letting me have more referrals that I felt perfectly qualified to take (P2, day 55).
	Reflecting	**Self-assessing/self-reflecting**	*Practitioner assesses self-using FIP-EI or reflective prompts from a coach or colleague.*	I learned from this visit that sometimes you have to keep a calm exterior even through you feel awkward in a situation. That can be tough for me…. I like how she did [the family support guide] in writing in front of the mother so there could be some accountability to follow up with at the next visit (P1, day 7).
		Reflecting-in-action	*Practitioner writes about her experience in such a way that makes it seem that she is reflecting during an experiential activity in order to make thoughtful decisions about what to do next on her own.*	I was literally reflecting on what I was doing during the visit and it helped me know what to do next to keep the visit from flopping (P3, day 72).
		Making a plan for continuous improvement	*Practitioner articulates her own plan for continuous improvement.*	I need to provide parents more opportunities to readdress the goals they are working towards and all they have done to get themselves closer. I need to ask more analysis questions to promote parent self-attribution during visits and I need to provide more opportunity for parents to explore ideas rather than just sharing my ideas (P1, day 21).
	Seeking Information	**Talking with a colleague**	*Practitioner notes that she had a one on one conversation with a colleague.*	This conversation was helpful, but the most helpful part was seeing [colleague] model actual examples of coaching conversation. It was also very helpful to hear a little more about the development of the FIPP-EI, specifically how the child learning piece evolved as a specialty family resource. Hearing about the process of the FIPP-EI development helped me to contextualize this tool better (P2, day 4).

Themes	Focused Coding	Initial Coding	Definition	Example from Log
		Reviewing Literature	*Practitioner searches for relevant literature to inform her understanding of a condition or skilled intervention needed to support a child or family.*	Worked on a lit review for my visit and started putting together a home exercise program for the pregnant mother. It takes a lot of work to make sure that things are evidence based practice. I imagine this will get to be less work as I have already done lit reviews on more things, but it does help me understand the need to prioritize time and energy to fidelity of practice with discipline specific information. Even as a new graduate, there are things I am not up to date on (P2, day 8).
	Following Directions	**Completing paperwork**	*Practitioner engaged in completing paper work as part of her work as an early interventionist.*	I began writing contact notes for the visits I went on today. After the first one I got the hang of it (P4, day 3).
		Following a directive	*Practitioner notes that she was given a directive that was not jointly planned.*	I did take some documentation notes and will try to write a note on this visit per [colleague's] request (p1, day 7).

Themes	Focused Coding	Initial Coding	Definition	Example from Log
Self-Efficacy Attitudes and Beliefs of the Practitioner	**Pleased about Progression**	**Enthusiasm for learning**	*Practitioner describes being excited about an opportunity to engage in an experience. Practitioner uses words like "I get to… or "I was able to," that connotes she was excited or eager to do it. Also refers to the practitioner expressing eagerness for a challenge.*	I am excited to work with this family on her next goal of getting her child comfortable with brushing his teeth with toothpaste. It's an excellent learning opportunity for me (p1, day 7).
		"I got this"	*Practitioner notes that she thinks she has the practices or an aspect of the practices down pat. Because of a success she believes that she has mastered it.*	This visit was good for me because I realized that I was the one shaping the visit. I am the one who impacts how well the visit turns out and I think I've got this down (P3, day 73).
		"I'm on top of the world"	*Practitioner expresses that she has a high level of satisfaction with herself because she has done something well.*	When we went outside to play on the swing I provided informative feedback about a new strategy she could use to get him to repeat words she wants him to say to request activities during playtime. I explained the strategy and asked her if she was willing to try it. She did! And it worked! I was on top of the world at the end of this visit (P1, day 30).
		"Confident in my progress"	*Practitioner expresses that she is pleased with how she is doing because she is experiencing success with use of the practices or because she is progressing at a pace better than what she expected.*	I felt like this was challenging visit, but I was not discouraged. I was proud that once I got one prompt from my coaching, I was able to press forward and know what to do. Instead of feeling like I didn't know what to do and getting down, I had confidence that I could do something and once I got the prompt, I did. I was more perseverant than I normally was. I was proud that I could figure out what to do and it worked. I was getting it and it was showing. I am confident that my progress is on track for me (P3, day 118).

Themes	Focused Coding	Initial Coding	Definition	Example from Log
		"Relieved"	*Practitioner describes feeling relieved that she's not in it alone. Practitioner knows that even though it might be hard she can do it and is relieved.*	P1 felt overwhelmed and was consoled when she learned that her colleague felt the same way. I just feel like when I learn one thing I forget all the other things. But felt relieved that she was not the only one who felt this way. This isn't something I can't handle (P1, day 34).
		"Satisfied"	*Practitioner felt satisfied with having learned something new. Practitioner expressed feelings of contentment with her progress and her learning.*	This process took a while but I feel it will get easier as I continue to use the tool. I think I did better with coaching than I felt like in the visit. I didn't do as well on child-learning. I did ask fewer Y/N and broadened my other types of questions. My feedback needs improvement. There were a few questions/feedback statements that I was unsure of. I was able to rephrase in my head the few Y/N questions and I reflected on how I could make child learning better on the next visit (P1, day 20).
	Learning	**"Lesson worth learning"**	*Practitioner describes that she learned something and remembers thinking at the time how important it is for her to remember the lesson that was learned from the experience.*	During my debrief with a colleague, I got feedback on the awkwardness of asking "does that make sense" often during the conversation. We discussed the reasons why the question was awkward. I remember thinking, "this is a lesson I should take with me and not do it anymore. I can be better if I can work on this 'thing." (P2, day 11).
		"Surprised/ impressed"	*Practitioner expresses being pleasantly surprised or impressed about something she observed about the organization or herself.*	Attending team meeting made me feel excited and hopeful for my future as a team member at FIPP. I was surprised and impressed that the team showed a lot of trust in one another's abilities to serve families and share professional information with one another (P3, day 1).

Themes	Focused Coding	Initial Coding	Definition	Example from Log
		"Light Bulb Went Off"	*"Oh! That makes it make more sense."*	I had learned this, but seeing it happen in action cemented for me that yes, this is the right thing to do. A light bulb went off for me. This is what it is supposed to look like (P2, day 100).
		"This is something to pay attention to"	*Practitioner thought this is something to pay attention to, this is something that matters.*	For the first time, I saw that two children with the same diagnosis could be getting different levels of help depending on the family factors present. It helped me understand what is consistent about the practices and what varies based on family factors. Family factors are crucial to understand and acknowledge. This was profound and something to pay attention to (P2, day 5).
	Persevering	**"I'm Persevering"**	*The practitioner indicates that she is confronted by a challenge and may even be frustrated but rather than feeling daunted is working to figure it out. The practitioner is engaged by the challenge rather than overwhelmed by it. The practitioner is working to make meaning.*	At the time I felt it was really horrible and I didn't do anything right. In reality it wasn't as bad as it felt in the moment. I learned a lot from having been brave during this experience. It was worth pushing through to the end even though I was messing up. I needed to not give up. If I had stopped I would have failed. If I kept going and stuck it out, I at least did that, and I did that. I was invested in it and I knew I needed to do it and get past it in order to hone the skills. My coach and I had also already talked about me not giving up and her not jumping in and I was determined to stick it out and see it through. I was persevering and my perseverance was important to my knowing that I can do even the hard things without needing to be bailed out (P4, day 65).
		"Determined/Charged up"	*Practitioner was determined to avoid another mistake or determine to learn/master something.*	Practitioner had recently made two huge aha moments and was eager to try out her new understanding and her new skills in the context of a visit she lead herself. She reported feeling highly successful during this visit (P2, day 40).

Themes	Focused Coding	Initial Coding	Definition	Example from Log
		“Eager to have confidence”	*Practitioner expresses that she is eager to improve, be better, or be good enough to be out of orientation and practicing on her own.*	Seeing my colleagues eager to take this difficult referral made me want to have that confidence someday. I am eager to have confidence that I can help a family with the same challenges that seem out of my reach right now (P3, day 12).
		"Coming up for air before I go back under"	*Practitioner talks about positive, confidence-boosting events but does so in a way that is also highlighting her overwhelming feeling of frustration brought on by "not knowing" the rest of the time. Practitioner is comparing her feelings of competence during the current activity to what she feels the rest of the time.*	This visit made me feel like a [therapist]. I understood what was happening and felt like I was using information I already had rather than trying to learn more new things. While I am excited about learning the coaching process, I sometimes feel discouraged because I have never practiced independently as a [therapist], and worry that my clinical skills are rusty or not where they should be. This visit was very important for me in feeling competent and in understanding how my professional training fits with the coaching model. I kind of felt like I was coming up for air before I go back under (P2, day 4).
		“Frustrated/ defeated”	*Practitioner describes feeling not capable of doing the job. "Why can't I do this?" "Mad at myself." Participant describes doubting her abilities and feeling like giving up but not wanting to. Practitioner describes having made a stupid mistake that make her feel discouraged.*	I was mad at myself for not being able to complete the home visit. My coach gave me a pep talk which helped, but I felt unprofessional evening needing one. I am so frustrated with myself (P1, day 35).
	Insecure	**“Overwhelmed”**	*Practitioner expresses that so many things were going on, her mind felt split in multiple directions so it was hard to concentrate and know what to do next.*	This visit was a lot to take in. I remember thinking, “What on earth would I do if I were leading this visit?" It was overwhelming. I was trying to listen and be non-judgmental. I remember thinking it took a lot of trust building to get to the point where the parent would admit what was going on with her family that was creating so much stress (P2, day 53).

Themes	Focused Coding	Initial Coding	Definition	Example from Log
		"Discouraged"	*Practitioner felt unsatisfied with how she was doing.*	We had our research team debrief, and these sessions are supremely helpful to me. I really think I would be lost if I didn't know that [P1] was having similar concerns or experiences to my own. [Colleague] and [Coach] do a great job of being supportive. We were a little discouraged this week, and it was good to hear about the implementation lag that can sometimes happen (P2, day 37).
		"Embarrassed"		I felt like I had come from a place of closed-minded privilege. I thought I was more open-minded than this though. I had negative views of this mother about her past and once I met the mom, I loved her and her responsiveness. She was trying hard and in my mind I had not given her a chance. I walked in thinking that this mom was a criminal and was a waste of time and I walked out of the visit having had a lightbulb epiphany that my pre-judgement gets in the way of helping parents be who they want to be. I was ignorant and didn't give the family a chance. It is a crucial part of the job to have an open-mind. This was the first time I realized how crucial it is to be non-judgmental. I didn't communicate my thoughts about my revelation. I was embarrassed that I thought I was open-minded and evolved and I was really not much better than the system that sets families like this up for failure (P3, day 37).
		"Intimidated/ Nervous"	*Practitioner describes feeling insecure as a result of understanding big expectations or comparing herself with someone she perceives as having a level of skill much higher than hers.*	I was nervous about having to live up to the expectations of my coach. It was intimidating to watch how perfect she was with families and know that I am expected to do the same. I don't know if I can (P3, day 1).

Themes	Focused Coding	Initial Coding	Definition	Example from Log
		"Held back"	*Practitioner writes about feeling held back from being able to do more. Practitioner is worried she has done less than that the other practitioner or isn't growing as fast as she wants to or thinks she can.*	I found myself a little concerned that I have had less time here than [P1], and that I have seen fewer home visits or am less familiar with how things work. I feel like I am being held back by my coach. I am trying to focus on the things I have accomplished (P2, day 4).
	Arriving	**"Buying in"**	*Practitioner describes a strong belief in the efficacy of the practices she is learning. She is connecting her actions to an outcome and is expressing a level of commitment to the practices that lead to the outcome.*	I realized that I have not always been coming into the visits with a plan for how to support the parent. Even though the parent and I have a plan for the child, if I don't have a plan for how I am going to approach teaching the parent, the whole thing falls apart. I have to be incredibly systematic in preparing and if I do, this really works! I think I am buying into this process and committing to it (P3, day 67).
		"Reassured/ confirmed"	*Practitioner describes feeling confident that she knows something she didn't remember she knew, or feels reassured about words of encouragement given by a colleague or coach.*	[Completing a lit review] was really helpful for me in feeling like a competent therapist. It reassured me that I know important information and confirmed for me that I am capable. Sometimes, the orientation process makes me feel so far behind everyone around me that I forget that I do have knowledge and abilities. I don't know if this is compounded by the fact that I am a new grad who hasn't really had the chance to practice independently yet, but I really needed the boost of confidence today (P2, day 1).
	Comforted	**"I'm not in it alone"**	*Practitioner expresses that is glad that others are experiencing the same thing she is. She notes that it is comforting to know that her feelings and experiences are normal because others have/had had them.*	We did our planned orientation group meeting all together. It was good to hear that [Tara] is encountering some of the same difficulties that I am, and to know that I'm doing things relatively OK. It also helped me to process some of my learning to have to explain the rationale for why we planned things a certain way and how that matched the actual result (P2, day 15).

Themes	Focused Coding	Initial Coding	Definition	Example from Log
		Disengaged	*The learner logged in such a way as to indicate a disconnection form the learning activity, such as not taking the time or care to write a complete sentence or finish a thought.*	Easier the second time (referring to note writing) (P1, day 8).
Confidence	**High**	**High: Overcoming a challenge**	*Facing an unfamiliar situation and/or overcoming a challenge during the visit*	Practitioner was challenged for an extended period of time by how to reconcile responsive teaching strategies with her discipline-specific skilled interventions, and engaged in a targeted observation and debriefing that gave her an "aha" moment. It raised her confidence in the sense that she realized it all makes sense now... she is doing therapy...the organization's approach is good... and she's getting it. She notes having made a huge grow on this day (P2, day 38).
		High: Planning	*Practitioner notes that the act of planning and preparing for an activity inspired confidence in the practitioner.*	I came in early on this day to make sure I felt prepared to take the lead on parts of visits later in the day particularly since I was a little unprepared yesterday. I also wanted to print out some information I found for the family. Taking this extra time helped me to feel more in control and successful, rather than rushed (P2, day 4).
		High: Things to reinforce confidence "confidence boost"	*Practitioner got to do a task that she knew how to do really well, had done before, or was experienced at, and did it easily.*	This visit made me feel like a [therapist]. I understood what was happening and felt like I was using information I already had rather than trying to learn more new things. While I am excited about learning the coaching process, I sometimes feel discouraged because I have never practiced independently as a [therapist], and worry that my clinical skills are rusty or not where they should be. This visit was very important for me in feeling competent and in understanding how my professional training fits with the coaching model (P2, day 4).

Themes	Focused Coding	Initial Coding	Definition	Example from Log
		High: Watching others struggle and get through it	*Knowing you are in the same boat as others. You're not alone. Comparing yourself to others and realizing you're not the only one struggling.*	Watching [my colleague] struggle and still get opportunities gave me confidence that whatever I do was going to be fine too (P2, day 5).
		High: Someone had confidence that I could do something	*Practitioner notes that confidence a colleague showed in her increased her own confidence.*	I expected to just observe during this visit. I ended up having the opportunity to assist with ideas for positioning the baby for feeding and checking hospital notes on what had been recommended for feeding. This was a nice confidence booster that they had confidence in me and what I had to offer. I wasn't leading the visit, but I was able to offer important information right out of the gate (P4, day 10).
		High: Did something familiar	*Practitioner describes having done a task she already knew how to do and It made her feel capable.*	Spent the morning modifying a walker to add forearm supports, no one at the AT center was available and it was important to her mom to try it today. During the process, I found an owner's manual for the walker on the vendor's website, and got to use that to try to figure out the best way to do the modification. I really enjoyed this process, particularly because it gave me the chance to problem solve and have some very tangible success. It is also good to know how to access tools and parts in case I work with families who need equipment to be modified in homes (P2, day 10).

Themes	Focused Coding	Initial Coding	Definition	Example from Log
		High: Did something really well	*Practitioner noted that she felt successful at a task or event and it boosted her confidence.*	I felt like this was challenging visit, but I was not discouraged. I was proud that once I got one prompt from my coaching, I was able to press forward and know what to do. Instead of feeling like I didn't know what to do and getting down, I had confidence that I could do something and once I got the prompt, I did. I was more perseverant than I normally was. I was proud that I could figure out what to do and it worked. I was getting it and it was showing (P3, day 118).
		High: Experience	*Participant describes that having had multiple experiences with the same task (repetition) inspired confidence.*	This was the second time I led a visit with this family so I felt more at ease. I had a feeling from the last few visits that this family was ready to try things on their own. It felt good to help great grandmother see all that she has done for her great grandchildren and how she took the information that Coach had provided and ran with it. She even said she is proud of herself! It's moments like this that make me love coaching parents (P1, day 30).
		High: Helped someone else	*Practitioner used her knowledge and expertise to help another colleague in a real-life situation and it resulted in a high level of confidence that the practitioner is valuable to the team.*	I conducted an evaluation today with a colleague I got to help her understand more about the language subtests. It was good to be able to use my knowledge and expertise to help someone else. I felt like I contributed to someone else's learning (P1, day 36).
		High: Knowledge Induced	*Practitioner learned something that she foresees will help her be successful in the future. An increase in knowledge gave practitioner the confidence to know she can do something.*	I felt confident leaving a practice group discussion because the information shared gave me knowledge that decreased my anxiety about a fearful situation. I feel better prepared to face the challenge if it ever crossed my path (P1, day 34).

Themes	Focused Coding	Initial Coding	Definition	Example from Log
		High: Recognized a mismatch	*Practitioner recognized a mismatch between the behavior of a colleague and research-based practices, or recognized that what she was doing was a mismatch and knew what to do instead.*	I recognized my own mistake immediately during the visit and had an idea for how I could have used the opportunity to build the parent's confidence and knew what question I should have asked. Even thought I made a mistake I feel good that I was able to recognize it and figure out how to repair it on my own (P3, day 58).
		High: Has an air about her	*Practitioner notes an interaction and it is not in the words she uses, but in the tone of her discourse that conveys the confidence. Her writing suggests an air of confidence.*	The manner in which the practitioner wrote about this entry suggests that had an air of confidence about her. She was not sounding like a new practitioner in orientation, but has transitioned to confident, experienced practitioner (P2, day 72).
	Low	**Low: Confidence shaking event**	*Practitioner notes an event that caused her confidence to decrease.*	I felt discouraged by this encounter, although the debrief helped to allay this somewhat. I think this would have gone better if I had planned for the interaction; …I chose to jump in with very few questions prepared, and I think that was the reason for my loss of confidence (P2-14, day 3).
		Low: Confidence was a barrier to trying	*Practitioner is hesitant to try something on her own. Practitioner comments not feeling comfortable.*	It felt very awkward to jump in…I think I would be more comfortable if I had a more distinct plan for my participation. [Coach] and I have discussed this and have a plan to make that happen (P1, day 2).

Themes	Focused Coding	Initial Coding	Definition	Example from Log
What the practitioner learned	**Implementation Competence**	**Content knowledge**	*Practitioner makes comment about the use of, reads about, discusses, or is challenged by, content related to her discipline during a home visit or a reflective conversation.*	Participant wrote that she felt she had been working with delayed children for so long that she has forgotten what typical development looks like and took the initiative to refresher her memory of typical development by watching videos (P1, day 35).
		Evidence-Based Practices	*Practitioner reports having read, discussed, observed, being challenged by, or learning about any of the characteristics of natural learning environment practices, resource-based practice, family-centered practices, or coaching.*	I had not fully put together how all the separate pieces I've been learning about (i.e., evidence based EI practices, coaching, PSP approach, natural learning environment) truly fit together. I was able to see how each practice meshed together is what leads to the success of coaching in early intervention. I was able to identify each practice in the visit I had just observed and understand how the FIP-EI is a tool to evaluate how closely a visit matches coaching practices (P4, day 53).
		Teaming	*Practitioner engages in or learns about the role of the team, working together as a team, overcoming team conflict, team process, accessing the team.*	I like how [colleague 1] and [colleague 2] had planned prior to the visit exactly what [colleague's] role would be before they went. They had a cue that [colleague 1] was to give [colleague 2] when she felt like she needed his support. That seemed to go pretty well (P1, day 15).
		Incorrect procedures/ practices	*Practitioner indicates new knowledge or understanding that is contradictory to EBP and it goes uncorrected.*	Practitioner and colleague showed up at home visit with inadequate interpretation, and had to resort to simple yes/no questions. During the debriefing, "the three of us talked about how sometimes you have to meet a parent where they are and that was the best we could do in the moment....During the visit, I still shared some basic information about FIPP but between [the interpreter] and me we felt that some of the information would not be helpful to the mother so I left some of it out (P1, day 7).

Themes	Focused Coding	Initial Coding	Definition	Example from Log
	Personal Awareness/Competence	**Importance of planning/ preparation**	*Practitioner indicates learning by experience the importance of engaging in advance planning and being prepared for multiple situations to occur at a visit.*	I lead the entire visit, and it was difficult. I was not as prepared for the enrollment paperwork as I would have like to have been, and it sort of made me flustered for the rest of the visit. I won't do that again. I really need to talk through the paperwork with someone in a role play situation so I get the explanation down (P1, day 26).
		Self-awareness	*Practitioner notes reflections or discoveries/awareness about her learning process or her skills and abilities related to content. Practitioner is becoming self-aware of her stage or learning or knowledge. Practitioner is reflectively self-evaluating.*	Coach and I tried to figure out why it is so hard for me to do this part. It might be that I am so in my head about asking the right questions that I have a hard time accessing my information. Or maybe I have not figured out the best time or cues when I should provide information (P1, day 20)
		"This is what I want to do"	*Practitioner notes that she realized that what she will be doing within the organization is in fact what she wanted to be doing. The job is a good match for her desires. She understands what the job will entail and likes it.*	I knew I could be a better [practitioner] than what he was getting. I understand the importance of what FIPP does to promote competence. This was a galvanizing event and made me realize that this is what I want to do (P2, day 62).
		Learning how to reflect	*Practitioner notes that she is taking steps that appear to be learning how to systematically reflect.*	I wrote down all questions/ comments I made during the visit so I can go back and categorize them and see where I can improve (P1, day 16).
	Competencies at Navigating the Organization and How I Fit Into It	**Administrative functions**	*Practitioner engages in or learns about procedures, including systems, paperwork functions (e.g.,, note writing, PPRs, evaluations, form letters), enrollment functions, or other documentation, and academic detailing.*	[Colleague] showed me the important types of entries I would be using most often (P1, day 6).
		Community/organizational politics	*Practitioner discusses an evolving awareness of herself or the organization in relationship to others. Practitioner notes community or organizational politics.*	[While attending this training] I liked hearing the things I've been reading about articulated clearly. It was also interesting to hear how these practices differ from what the community is doing. I don't understand why someone wouldn't be on-board (P1, day 1).

Themes	Focused Coding	Initial Coding	Definition	Example from Log
		How things work	*Practitioner describes having learned something about the hidden culture of the organization.*	It seems like the organizational culture includes discussing/fighting openly with one another. It seems that speaking up in practice conversations is risky, unsafe, and uncomfortable (P1, day 58).
		"What a great resource my colleagues are"	*Practitioner notes being pleasantly surprised and impressed with what a great source of information and resource her colleagues are.*	I am impressed with what a great resource my colleagues are after this heavy discussion about the ethics of family-centered practices. They really helped me expand my understanding (P1, day 34).
		"I'm not in it alone"	*Practitioner notes feeling solidarity with others. She notes that she does not feel alone in her struggles or learning.*	I learned that Practitioner 1 was experiencing the same thing I was and I learned that according to the implementation dip it is normal to feel this way. Others in my position felt this way (P2, day 37).
	Learning How to Learn	**"It's no big deal if things don't go perfectly"**	*Practitioner notes that making mistakes and learning from them is acceptable and will not be met with negative repercussions from the coach or organization.*	I learned from my colleague's experiences that I'm not going to get pulled back from participation just because things don't go as planned. Things weren't going so well for her and she was still getting ample opportunity to practice (P1, day 5).
		"Bad things happen"	*Practitioner notes that unfair treatment or "bad" collegial practices on the part of someone she perceives as hierarchically above her.*	I learned that I wasn't in charge of my own learning. If I did something my coach didn't like, she wasn't going to let me keep doing it. I have done so much work for this family, I don't understand why I don't get to do part of this right now. My coach made me feel like shit. The coach had a preexisting relationship with the family and even before this day the coach had told me that even though the referral was assigned to me I wouldn't be the one to do it because it was beyond what I was capable of doing (P2, day 68).
		"Things don't always go as expected"	*Practitioner learns that unexpected complications can happen in the course of the work.*	I was frustrated when the visit didn't go as expected. (P2, day 59)

Vita

Sarah Sexton was born in St. Albans, Vermont, to Jimmie and Barbara Sexton. She graduated from Boston University with a B.S. in Early Childhood Education in 1995. After working for a year as a preschool teacher, she moved to New York and earned an MA in Early Childhood Special Education in 1999 and an M.Ed. in Educational Leadership in 2001, both from Bank Street College of Education. While in New York, Ms. Sexton served as the director of an early childhood education center. In 2002, Ms. Sexton moved to North Carolina to work at the Family, Infant and Preschool Program (FIPP) in Morganton. While at FIPP, Ms. Sexton, directed and coordinated several notable projects and programs including a nationally acclaimed Early Head Start Program and the North Carolina Family Partnership Model Demonstration funded by the Head Start State Collaboration Office. Ms. Sexton consults with early childhood and early intervention programs across the country and occasionally works as a grant reviewer for the Administration for Children and Families. Ms. Sexton now serves as the Associate Director at FIPP. In 2016, Ms. Sexton began her doctoral journey at Appalachian State University and earned her Ed.D. in Educational Leadership in 2019.

Ms. Sexton is a certified Early Intervention Fidelity Coach, holds a teaching licenses in Birth through Kindergarten, Special Education Cross Categorical, and School Leadership. Ms. Sexton is an active member of the Division for Early Childhood of the Council for Exceptional Children. She resides in Morganton North Carola with her son, Brandon.