Professional Development and Teacher Self-Efficacy

In Supporting Students with Special Needs

by

Emerald Woodland

A Dissertation Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

Approved March 2019 by the
Graduate Supervisory Committee:

Lauren McArthur Harris, Chair
Erin Rotheram-Fuller
Nicole Teyechea McNeil

ARIZONA STATE UNIVERSITY

May 2019

ABSTRACT

The purpose of the Inclusive Instruction Program (IIP) action research study was to explore the relationship between a new professional development cluster and general education teacher self-efficacy in supporting students with special needs. The IIP was designed to address teacher areas of needs as identified in a prior cycle of action research. During the needs assessment cycle, teachers suggested that they needed help with differentiation, behavior management, collaboration, and progress monitoring. As a result of this information, the IIP study workshops were developed around these topics. The study was grounded in a constructivist framework and aspects of self-efficacy and sensemaking theories were explored. The literature review includes studies centered on professional development for teachers in special education related topics. The IIP study participants included 11 fourth through sixth grade general education teachers. Participants completed a presurvey, attended four workshops over the course of six weeks, and completed a postsurvey. Before each workshop participants wrote journal reflections, and after each of the workshops, participants completed feedback forms. Six of the 11 study participants were randomly selected to complete 30-minute individual interviews. The results of the study indicated that providing participants with professional development in special education related topics did not increase their self-efficacy. However, participants were able to make sense of their professional learning with individual reflection and collaboration with peers and administration to further discuss and integrate into their individual practice.

DEDICATION

First, I want to thank God, who makes all things possible.

To my mother Rose,

Thank you for always showing up for the important moments,

encouraging me to not to give up and being my loudest cheerleader in life.

To my mentors Afrikan Singleton, Charles Charlap,

Marlow Wyatt, Gail Herring, Ms. Jaha, Larry Strauss,

Sheryl Spigel, and Roschoune Franklin

This is only possible because of your selfless deposits of wisdom, wonder and well wishes in my life over the years. I am forever indebted to you.

This is also dedicated to special educators and children with special needs.

ACKNOWLEDGMENTS

The IIP study was made possible by the continued collaboration and support of several people that I would be remiss if I did not acknowledge.

I am grateful to my doctoral committee for their investment in this study. Dr. Lauren McArthur Harris, thank you for showing me how to be thorough in each phase of this project. Without your thought-provoking questions and prompt feedback, this work would not be possible. Thank you, Dr. Erin Rotheram-Fuller, for reminding me to write concisely and for your words of encouragement along the way. Finally, thank you, Dr. Nicole Teyechea McNeil, for helping me to better understand theory, supporting my post-doctoral endeavors, and always being willing to meet and provide sound advice throughout this process. I appreciate the time that each of you took away from your own families to invest in me.

I am grateful to each of the IIP study participants who trusted me to present instructional content on topics near and dear to my heart, as well as record and tell your stories. Thank you for taking this journey with me to better support our students with special needs.

TABLE OF CONTENTS

Page

LIST OF TABLES

CHAPTER 1

INTRODUCTION AND PURPOSE OF THE STUDY

On June 4, 1997 President Bill Clinton signed the Individuals with Disabilities Education Act Amendments (IDEA) (20 U.S.C. § 1400). IDEA mandates specific academic expectations and accountability measures for the millions of children with disabilities in the United States. IDEA was created to reduce the achievement gap between children with disabilities and those without disabilities. IDEA requires public schools to provide a free and appropriate public education to all eligible children with disabilities in the least-restrictive environment (LRE) appropriate for the needs of the individual child (U.S. Department of Education, 2007). The main focus of IDEA is to ensure that public schools create appropriate Individual Education Plans (IEPs) for students with special needs in order to ensure the least restrictive and most inclusive learning environments (U.S. Department of Education, 2007). Generally, students with special needs have two placement options within a public school: resource or inclusion.

The resource classroom is one placement option for students with special needs in which a special education teacher is responsible for delivering specially designed instruction in the areas that the student demonstrates a deficit (Rebhorn & Smith, 2008). Special education teachers use a variety of techniques while working with small groups of students in a resource setting to assist in meeting the IEP goals deemed appropriate for each student. Some students with special needs only spend a portion of the day in the resource classroom and the remainder of their time is spent with their non-disabled peers in the general education classroom. This ensures that students with special needs interact with grade level, nondisabled peers (Yell, 2006). The benefit of placement in resource

support is specially designed instruction to meet the education deficits and challenges of a student.

The general education classroom, known as the inclusion classroom, is the second placement option and is deemed appropriate for some students with special needs (Rebhorn & Smith, 2008). The general education classroom is considered inclusive because students with special needs remain in a classroom that they would be in if they had no disability (Smith, 2004). Within the inclusion setting, the general education and special education teachers collaborate to adjust and present content to meet the needs of students according to their IEP (Ainscow, 1994). Research shows that students with special needs who participate in inclusion classes and activities benefit in their social-emotional development (Holahan & Costenbader, 2000; Strain, Bovey, Wilson, & Roybal, 2009), and tend to perform better academically than other students with disabilities who are in more homogenous environments (Wilson & Michaels, 2006). Inclusive education is best achieved when all students, both with and without special needs, learn and engage in the same classroom activities and classroom setting (Smith, 2004; Odom et al., 2002). Inclusive education is part of a reform process that aims to promote diversity in schools. By combining students with and without special needs in one classroom, there is potential to combat social exclusion and promote tolerance (Ainscow & Miles, 2008).

The challenge with inclusion is ensuring that general education teachers are adequately prepared to meet the needs of each student. Royster, Reglin, and Losike-Sedimo (2014) found that there is a lack of proper training for general education teachers in supporting students with special needs. Brownell, Adams, Sindelar, Waldron, and

Vanhover (2006) contended that this professional training is lacking in spite of the fact that in most schools general education teachers have students with special needs for the majority of the instructional day. My problem of practice is that general education teachers lack training and supports to assist students with special needs. I explored the problem of practice through practical action research—research conducted by practitioners within the field of education to improve systems and practices within a professional setting (Plano & Creswell, 2010).

Situational Context

The school where I work, Progressive Elementary (a pseudonym), is designated Title 1 and located in a large urban area in Arizona. According to the district website, 85% of the student body qualifies for free or reduced lunch. Approximately 67% of the student population is Hispanic, with the remaining population being 8% African American, 9% Native American, 14% Caucasian and the remaining 3% identifying as biracial (District Web Page, n.d.). Twenty-eight percent of the student body is identified as English Language Learners, meaning their first language is one other than English. The school has a student mobility rate of 38%. The mobility rate refers to the number of students who maintain attendance throughout their fourth through sixth grade academic years. Six percent of student families identify as homeless.

At the time of the study, the school principal reported that students who have emotional and specific learning disabilities comprised nearly 35% of the student body. I serve as a resource teacher, exclusively working with students who have specific learning disabilities in the areas of reading comprehension, fluency, written expression, math calculation, and math problem-solving. Over the past four years, I have supported these

students by using a pedagogical approach that centers on collaborative learning, supporting students in small groups to deliver intensive reading and math instruction, and reading and math remediation. This delivery of instruction outside of their general education classroom is considered resource support.

At Progressive Elementary, students with special needs have received only resource support until recently; however, this support was proven ineffective and prompted a shift toward more inclusive practices in 2016. The state of Arizona provides a rubric for state assessment performance that ranks students in one of four categories: minimally proficient, partially proficient, proficient, and highly proficient. Students at the school consistently performed below grade level on district-wide assessments, and in spring 2016 the new Arizona MERIT examination identified the majority of students with special needs as minimally proficient in reading and math content at their grade level. The school's academic achievement data was so low for students with special needs that the school qualified for a 2016-2017 school improvement grant (SIG) from the State Department of Education. During that academic year, the state achievement data reflected that students with learning disabilities were performing at a 30% proficiency rate on the state assessment, whereas their nondisabled peers were performing at a rate of 80% proficiency on the state exam. This showed a 50% discrepancy between students with disabilities and their nondisabled peers in both reading and math on the state exam. With the school's administration move toward more inclusive practices, the general education teachers have experienced a shift in responsibility and have assumed a greater role in advancing students' growth toward proficiency.

Local Context

In my work as a special educator, a core part of my role involves breaking a cycle of inequity to move toward a fairer system for students with emotional and learning disabilities. Educational equity means all children must have access to quality education and this includes children with learning and emotional disabilities. Students with special education needs require opportunities that are equal to those of their typically developing, non-disabled peers. They deserve to have their individual needs met and receive the instruction, accommodations, and assistance they need in order to be successful. Special education comes with a stigma and creates a label for students that may define them for the entirety of their education (Odom & Bailey, 2001). Throughout the past four years at the school, I have noticed how the label of "special education" can change how a child is treated and how teachers adjust their expectations for that child in the classroom setting. I believe that in order to close the gap, we must shift some practices in education.

The Case for Intervention

The increased placement of students with special needs in general education classrooms requires those educators to be prepared to teach diverse learners (Brown et al., 2008). Grskovic and Trcinka (2011) explored teacher needs regarding being prepared to teach students with special needs. These researchers found that the lack of preparedness may be attributed to the fact that, "many general education teachers in the work force today received their training prior to the gradual implementation of inclusion . . . and they may not have adequate professional development in that area" (Grskovic & Trcinka, 2011, p. 99). Their study identified several "essential" standards that helped prepare teachers to teach children with disabilities, including classroom management,

differentiation, collaboration and progress monitoring. During Fall 2016, I conducted semi-structured needs assessment interviews (discussed further in Chapter 2) with teachers at Progressive Elementary, in which several reported not feeling prepared to teach students with special needs. Teacher responses further disclosed that the professional development training sessions provided by site administrators were not geared toward the day-to-day practices and challenges in supporting students with special needs. Since these teachers were in-service teachers, I selected professional development training as an intervention because it was possible to incorporate workshops within the school's existing hours and teachers could immediately apply what they learn to their practice.

Previous Cycle of Action Research

The design of my intervention—a month-long cycle of professional development that I call the Inclusive Instruction Program (IIP)—was influenced by a previous cycle of action research I conducted in Fall 2016. Kaufman et al. (1993) asserted that instructional design should begin with a needs assessment, which is a basic understanding of the problem. If the instructional designer neglects to accurately find the problem, there is a danger of the intervention only addressing the symptoms of the problem and no resulting change in target audience performance. During that cycle of action research, I sought to understand the state of teachers' perceptions regarding their job in relation to students with special needs. This previous cycle attempted to answer the following research questions: What are teacher perceptions about their positionality in special education support for students with specific learning disabilities? What are teacher beliefs about

their contributions to the educational trajectory of students with specific learning disabilities?

From the total population of teachers at the school (N = 16), I randomly selected a smaller sample (n = 5) for participation in individual interviews. Participants ranged in age with two participants in their twenties, two in their thirties and one in their forties. Participants also ranged in teaching experience from two to 14 years. Three of the participants identified as female, and two identified as male. Each of the participants taught a self-contained classroom in which students remained with them for each content area and only left for special area classes such as art, or for special education supports.

Purpose of the Study

The purpose of this study was to examine the influence of a new professional development cluster (a collection of several presentations) on teacher self-efficacy in supporting students with special needs. This study also gathered information on teachers' ability to make sense of their professional learning. To analyze these variables, the following research questions were examined:

1. How are teachers' professional experiences related to their perceptions of special education and teaching students with special needs?
2. How and to what extent does teacher professional development in special education influence their self-efficacy of teaching students with special needs?
3. How do teachers make sense of and apply their professional development cluster to their practice?

CHAPTER 2

THEORETICAL PERSPECTIVE AND RESEARCH GUIDING THE PROJECT

Throughout Chapter 2, I present the theoretical perspectives and research that guided the project in three sections. First I focus on literature related to social constructivism, self-efficacy, and sensemaking theories, respectively. Second, I explore studies related to providing general education teachers with professional development in special education related topics. In the third section, I describe a previous cycle of action research related to the present study.

Theoretical Perspectives

Constructivism. Vygotsky's theory of social constructivism is the primary framework underlying this intervention. Constructivist theory, as originally attributed to Piaget (1967), suggests that learning is a process of making new understanding rather than gaining it. The constructivist theory suggests, for example, that lecture-based practices, in which a presenter disseminates information, are ineffective because learners are not constructing knowledge for themselves by connecting to prior knowledge. Vygotsky's social constructivist theory posits that individuals create knowledge based on social interaction and engagement from activity and dialogue about a shared task or problem (Driver et al., 1994). This perspective suggests that learners construct meaning by creating associations between prior and newly acquired information in social settings with peers (Michael, 2006).

Piaget's (1967) work on constructivism further asserts that individuals either adapt or assimilate experiences to construct new forms of knowledge as the chief way of learning, which means that learning only occurs from lived experiences (Tobias & Duffy,

2009). When assimilating, a person incorporates all new experiences into a pre-existing framework on an "as is basis" without necessarily having to change that understanding. Assimilation happens whether or not the pre-existing framework or mindset was correct or faulty (Guthrie et al, 2004). Therefore, an individual may encounter experiences that contradict his or her internal representations (Piaget, 1967; Tobias & Duffy, 2009). Constructivists have asserted that learners construct their own reality based on their perceptions of experiences (Posner, 2004).

Jonassen (1991) stated that someone's knowledge is grounded in the perception of the physical and social experiences that they comprehend. Constructivism is also defined as a psychological notion based on development (Brooks, 1986). Constructivists posit that people become familiar with their surroundings by interacting and using other cognitive domains to retell information (Posner, 2004). When considering how teachers learn best there must be some form of information processing, reflection, and implementation. Constructivism connects to my problem of practice and research questions because it suggests that individuals make meaning of their lived experiences. From the understanding that teachers operate in a community of practice, it is evident that constructivism of content knowledge, policies, and procedures is taking place in schools across the world. Constructivism is also considered pertinent and applicable because it directly links to teachers' actions based on their prior experiences and knowledge. The intervention for this study was designed with a constructivist framework.

According to Walczyk and Ramsey (2003), constructivism suggests that the following six principles describe learning: (1) "material being learned is important to learners, (2) learners have a deep level of interaction with content, (3) learners must be

able to relate new information to what they already know, (4) learners must continuously update understanding as a result of new experience, (5) new learning does not automatically transfer to new contexts to which it is relevant, and (6) students become independent learners if they are aware of the process of learning" (p. 567). The construction of professional content knowledge on how to educate students with special needs can be understood and facilitated through Vygotsky's *zone of proximal development* (ZPD). According to Rieber and Robinson (2004), Vygotsky indicated that people have two levels of learning which include social and internal. Members of professional learning communities bring their prior knowledge (internal) and construct new knowledge based on social interactions with other group members (social). The acquisition of new knowledge is possible, not only through the social interaction but also by having a group that includes more experienced and less experienced learners which is an integral factor of the ZPD (Doolittle, 1997). For the purpose of this study, the participants were teachers with varying years of experience.

Self-efficacy. A second theory that frames this action research project is Bandura's (1977) theory of self-efficacy. Bandura defined efficacy as the "conviction that one can successfully execute the behavior [which] will lead to certain outcomes" (p. 193). Self-efficacy is confidence in one's ability to accurately complete a task. High self-efficacy encompasses willingness to attempt new tasks and persevere through challenges (Bandura, 1997; Ekstam et al, 2018; Lohman, 2006; Pajares, 1996).

Holzberger (2013) defined teachers' self-efficacy as "their beliefs about their capability to teach their subject matter, even to difficult students" (p. 774). Gibson and Dembo (1984) found that teacher self-efficacy has two constructs: general teaching

efficacy (GTE) and personal teaching efficacy (PTE). Leyser et al. (2011) found that the first construct corresponds to Bandura's self-efficacy dimension and suggested that "teachers have a personal teaching efficacy (PTE) or belief in their skills to influence student learning and behavior" (p. 242). PTE posits that teachers have some degree of confidence in their ability to impact student outcomes positively. Leyser et al. (2011) asserted that the second construct corresponds to the outcome expectancy dimension and suggests that "teachers sense of [general] teaching efficacy (GTE) or belief in a teachers ability to bring about change is limited by external factors such as home environments" (p. 242). GTE suggests that teachers feel that their ability to enact change for students can be impacted by factors outside of school. GTE further proposes that teacher self-efficacy might influence student learning outcomes, behavior and/or teacher engagement.

Bandura (1997) suggested four sources of self-efficacy including mastery experiences, physiological activity, vicarious experience, and social persuasion. Mastery experiences pertain to experiences of success with a task. Psychological activity pertains to actually attempting a task. Vicarious experiences refer to assessing your ability as compared to another person's. Social persuasion refers to being convinced to attempt a task by another person. In summary, these four sources of self-efficacy, are responsible for increases (when they are experienced) and decreases (when they are not experienced) in teacher self-efficacy. Self-efficacy theory relates to this study because a teacher's self-efficacy is often linked to retention and quality of instruction (Leyser et al., 2011). As I explain in Chapter 3, I assessed teacher efficacy before and after the intervention using the Teacher Efficacy for Inclusion Scale (Hollender, 2011).

Sensemaking. The third theory that frames this action research project is Weick's (1995) sensemaking theory. Sensemaking theory suggests that people create their perceptions of reality based on creating meaning for individual experiences (Weick, 1995). Spillane (2002) found that sensemaking theory also posits that people "assimilate new experiences and information through their existing knowledge structures" (p. 393). Weick (2005) described sensemaking with the acronym SIR COPE. First, he looked at sensemaking as *social*, considering that people need to reflect both individually and collaboratively. Second, he considered sensemaking to be focused on *identity*, so the individuals consider a perception of self. Weick asserted that sensemaking is *retrospective*, which requires some reflection on past behavior. Weick considered *cues* as a large contributor to sensemaking because people focus on what they notice to help them construct something comprehensible from lived experiences. Lastly, the SIR COPE model of sensemaking asserted that the process is *ongoing*, *plausible* and requires *enactment*. Weick noted that sensemaking is a *constant*, or *ongoing*, process of assessing experiences. He posited that individuals consider *plausibility* in the sensemaking process which is essential to ascertaining the reasonableness of action. *Enactment*, as Weick noted, is the consideration of implementation given the other components of the SIR COPE model.

Within the context of this study, teachers critically reflected on their instructional practices and thus considered their student outcomes based on their prior practice and new learning. Much like Weick's (2005) model, the reflection was a continuous process, repeated throughout the intervention timeframe, because it was necessary to ensure that teachers did not become complacent in their professional obligation to deliver quality

instruction that would contribute to the educational growth of all students, no matter their ability level. The teachers' participation in sensemaking was particularly important, as the educational needs and requirements for students with special needs are ever-changing, and certainly not one size fits all.

Now that I have provided an overview of each theory, I will explain how they are linked for the purpose of this study. As previously mentioned, Vygotsky's social constructivism theory provided the framework for the professional development workshops. I designed each of the four workshops to promote individual reflection (internal constructivism) as well as facilitate interaction between teachers as they internalized and began the process of integrating their new knowledge into their practice (social constructivism). Prior to engaging in the workshops, teachers' self-efficacy was assessed in the areas of Behavior Management, Collaboration, Progress Monitoring and Differenatiation using the Teacher Efficacy for Inclusion Scale (Hollender, 2011). This personal assessment of efficacy connects back to internal constructivism, as teachers were asked to reflect on their prior experience in the aforementioned areas. The participants' completion of the written reflections, as well as the semi-structured interviews facilitated sensemaking and encouraged critical reflection on education preparation as well as practice and application of new learning.

Research on Professional Development

Professional development is a phrase used to describe the training provided to in-service teachers. In-service teachers are those who are currently working in the field of education at least part-time and are responsible for delivering instructional content to students. In this section, I will present information about professional development

programs by reviewing and discussing prior studies and programs. The focus of the review is professional development programs that closely relate to the action research project.

Inclusion professional development model. Royster, Reglin, and Losike-Sedimo (2014) created the Inclusion Professional Development Model (IPDM): a professional development program designed for general education teachers that focuses on inclusive practices. Royster et al. developed the IPDM based on the training curriculum in *Building Inclusive Schools: Tools and Strategies* (Halvorsen & Neary, 2009). Halvorsen and Neary created the curriculum based on years of research and had an aim of supporting professional development coordinators, teachers, and education administrators. The researchers designed their professional development model with the understanding that "effective professional development provides regular education teachers with knowledge and skills in how to effectively communicate for the purpose of solving classroom problems and providing continuity across instructional settings" (p. 1). Royster et al.'s (2014) module topics included: (a) inclusion defined, (b) planning for individual student needs in the inclusive classrooms, (c) systematic instruction in inclusion classrooms, (d) peer relationships and support, (e) collaborative inclusive service delivery, and (f) evaluation.

Royster et al.'s (2014) study found that general education teachers reported not feeling confident in their ability to educate students with special needs. After creating the professional development model, the researchers recruited 19 regular education teachers at a middle school to participate in the professional development training. The training consisted of six topics, detailed over the course of a 9-week treatment. Each of the

modules had a title and objective and was structured by Royster et al. to include reading educational articles, asking questions, and discussing. The modules were structured based on the adult learning theory and Knowles's (1984) model of adult learning. The researchers utilized three data collection instruments including the Inclusion Knowledge Test (IKT), the TATIS and the Teachers' IPDM interview instrument. The researchers found that participants knowledge of inclusion increased from the pretest to posttest. Royster et al. also found that teachers self perceptions regarding inclusion became more positive from preimplementation to postimplementation. This study connects to my own study's teacher self-efficacy because there was an interest in teachers' confidence both before and after the intervention since the research reflected a connection between quality of instruction and teacher confidence level.

For the context in which my action research is framed, the IPDM model has some strengths and limitations. In regards to strengths, the IPDM does offer a constructivist framework in which to design the professional development for my action research intervention. Specific components that I included based on the IPDM was module titles, objectives, research for review by participants, and discussion questions so that participants could engage with one another on topics. In regard to limitations of the IPDM model for my study, first, the model is too broad. Whereas the IPDM does include modules on collaboration, during my reconnaissance data collection stage of this action research study, teachers at the school expressed needs in specific areas that the IPDM does not include. Those areas were progress monitoring, differentiation and behavior management. Second, the IPDM module is lengthy and accounts for more than one training session per week; whereas the setting for this action research project has

scheduled time for only one weekly teacher training. Researchers McLesky and Waldron (2002) posited that inclusion professional development must be tailored to the specific school site. Third, the purpose of Royster et al's (2014) study was to determine the impact of the professional development on the teachers knowledge of inclusive practices and attitudes toward inclusion, whereas this action research study is more focused on the impact of the professional development to teachers self-efficacy in implementing these supports in their own classrooms.

A second professional development program that has received some recognition is that of researcher Male (2011). Male conducted a study of forty-eight teachers' self-efficacy before and after a professional development program. Male provided 10 weeks of professional development, comprised of 10 three-hour sessions. Data analysis included t-test comparisons of participants' pre and post responses to the Attitudes Towards Inclusive Education Scale (ATIES) (Wilczenski, 1992). Male concluded that teachers felt more confident at the conclusion of the professional development program, as reported by their postsurvey responses and evaluation of the program.

Limitations of Male's (2011) study included that the teacher participants were all enrolled in a Masters level course, so their opinions and responses could be biased considering they were receiving course credit. Another aspect of this study that posed a threat to validity was that the data was not triangulated and focused primarily on teachers self-reports on the survey instruments, with evaluative comments included to emphasize the point that the professional development was effective. Male (2011) did not include information pertaining to the professional development modules, topics, or content presented. The researcher did highlight the importance of continuing professional

development for in-service teachers, as well as the need for highly effective training content to shift educational institutions toward more inclusive practices. Male's findings directly relate to my action research study because my participants were in-service teachers; thus, they participated in continuing professional development training in inclusive practices. Also, the participants in this action research study will be responsible for inclusive practices in the years after the study.

Teachers College Inclusive Classrooms Project Approach. Schlessinger (2014) suggested that *inclusivity* instead of inclusion in special education should be the aim of schools in the United States. She argued that inclusion is simply a setting, whereas inclusivity is a mindset that is put into practice, not dependent on where a student is being educated, but rather by how the systems are set up in a particular school or district. She asserted that inclusivity appreciates differences and what they can teach. In fact, she posited that inclusivity requires mindset shifts for teachers regarding their perspective on students with special needs as well as their own teaching practices. In shifting these mindsets of teachers regarding inclusivity, Schlessinger (2014) found that there are often two misconceptions: (a) inclusivity is often considered a placement option, and (b) general education teachers are not confident in their ability to support students with special needs in their classrooms.

Schelessinger (2014) developed the Teachers College Inclusive Classrooms Project Approach (TCICP). TCICP is an organization dedicated to fostering inclusive classrooms by encouraging and facilitating teacher curiosity and collaborative problem solving (Schlessinger, 2014). Through the TCICP approach to teacher professional development, teachers meet monthly to discuss problems in their workplace and strengths

and challenges pertaining to inclusivity around that problem. After identifying the challenges, teachers work collaboratively to problem solve and mitigate those areas of weakness within their workplace. Teachers work in collaborative groups of 10-30 teachers, and, within these professional development spaces, receive direct instruction, resources to support the specific area of challenge, time to discuss their plan of incorporating into their own classrooms, and ongoing support in implementation (Schlessinger, 2014). The TCICP approach to professional development is unique in that it allows the teachers to come to their own conclusions and problem solve issues that they find challenging. Schlessinger asserted that the TCICP approach is intentionally designed to work on "two parallel counter-hegemonic agendas—one that addresses the positioning of teachers as intellectuals and one that addresses the learning and inclusion of all students" (p. 460). These two agendas led researchers to realize that the TCICP approach produces outcomes for both teachers and students.

Within the context of my action research project, the TCICP approach is nontraditional in its shift of responsibility from the professional development facilitator to the participants. The aspect of the TCICP that is particularly rewarding, is that teachers are working collaboratively and engaging in inquiry-based practices to problem solve for themselves which is something I incorporated into the planning and implementation of my intervention. I chose to incorporate the participant-centered problem solving into my own study because that practice relates back to the sensemaking and social constructivist theories. Participant-centered problem solving also relates to sensemaking in this study because participants engaged socially with one another and were reflective individually and collectively on their practice. Since the written

reflections were completed at each of the workshops it was constant and ongoing, fostering an environment for plausible enactment which are prerequisites to sensemaking. This TCICP approach also connects to social constructivism because teachers are engaging with other teachers to make meaning of their new learning. The researchers for the TCICP reported that teachers found this collaborative inquiry approach more meaningful than being told what to implement in their classrooms (Schlessinger, 2014). For this action research study, I aimed to ground the presentations for the intervention in research and provide teachers with several options to analyze and later apply their new learning in their collaborative groups and individual practice; thus, they still had structure and choice in their learning.

Method. To answer the two research questions, I conducted individual semi-structured interviews with each of the five participants. I designed the interview questions to learn about general education teachers' beliefs and attitudes toward educating students with special needs. The interviews served as qualitative data; I audio recorded them and analyzed the transcripts by coding using a constant comparative method (Ridolfo & Schoua-Glusberg, 2011). Interviewees provided insight into aspects of the participants' work that could be improved as well as their overall confidence in various aspects of their responsibilities. I asked interview participants to provide their honest thoughts about their professional training and what other factors might make them more effective in the coming academic years. Based on those interviews, I identified specific areas of need and developed professional development cluster modules on the topics of Differentiation, Behavior Management, Progress Monitoring, and Collaboration. My analysis led to three conclusions as they related to the research questions:

1. General education teachers do not receive district nor school-based professional development in the area of special education and therefore do not feel confident in their ability to support this vulnerable population of students.
2. General and special education teachers do not have common planning time to collaborate in supporting students with special needs.
3. Teachers lack access to a continuum of shared resources for supporting students with special needs and as a result assortments of resources are used.

Rationale for Intervention

The theoretical perspectives, research guiding the project, and a previous cycle of action research provide a foundation for the IIP that I implemented at Progressive Elementary. Vygotsky's social constructivist theory provided a framework for the intervention development and implementation. Bandura's (1977) self-efficacy and Weick's (1995) sensemaking theories provide theoretical lenses for analysis of the intervention data. The theoretical perspectives also offered context for collaborative professional development based on teacher identified needs and the importance of high self-efficacy for in-service teachers, as the theories directly link to practice and student outcomes. The research guiding the project highlights the necessity of effective professional development and suggests resources as well as implementation strategies. Lastly, my previous cycle of action research provided a foundation for the present study by providing context for the need of professional development for general education teachers in special education related topics in order to support their practice.

CHAPTER 3

METHOD

Throughout Chapter 3, I outline the methodology of this action research project in several parts. First, I describe the setting and participants and my role as a researcher participant. Second, I outline the instrumentation and data collection. Third, I describe the professional development intervention as well as a description of how it addressed the problem of practice. Finally, I discuss the data analysis and procedures for the study.

The purpose of this action research study was to explore whether a new professional development program that focuses on inclusive practices and topics—the Inclusive Instruction Program (IIP)—would impact general education teachers' self-efficacy of teaching students with special needs. Additionally, this study examined how general education teachers make sense of their professional learning.

Setting and Participants

Setting. I conducted this study during the 2018-2019 school year in at Progressive Elementary (a pseudonym) in Arizona. The school serves students from fourth to sixth grade in an upper elementary school setting. The mean class size of the school is 27. The school has six 4th grade classrooms, six 5th grade classrooms, and six 6th grade classrooms—for a total of 18 general education teachers. Throughout the school, special education supports are provided in both inclusion and resource formats, meaning that the 18 general education teachers collaborate with three special education teachers to provide targeted instruction to students with specific learning disabilities. The school supports an average of 400 students each academic year. As noted in Chapter 1, Progressive Elementary is a Title 1 school, with approximately 85% of the student body

qualifying for free or reduced lunch. The student population is 67% Hispanic, 14% Caucasian, 9% Native American, 8% African American, and the remaining 3% identifying as biracial (District Web Page, n.d.).

Participants. Participants in the IIP were 11 general education teachers who taught at the elementary school during the 2018-2019 academic year. Table 1 provides demographic information on participants that was collected using the Teacher Efficacy for Inclusion presurvey. The participants were 90% female and 10% male. They were predominantly White (54%), and then Multiple Race (27%) and Hispanic (18%). Of the participants, 72% held masters degrees and the remaining 27% held solely Bachelor's degrees. In regards to age, 45% of the teachers were aged 25 to 34, 36% were aged 35 to 45 and the remaining 18% were 45 years of age or older. The years of experience for teacher participants ranged significantly from less than one year of teaching experience to more than 15 years. Eighteen percent of participants had more than 15 years of experience in the classroom. Seventeen percent had between 11 to 15 years of teaching experience, while 45% had between one to five years and one teacher had less than one year of experience teaching.

Table 1

Participant Demographics

Variable	Frequency	Percent
Gender		
Female	10	90.0
Male	1	10.0
Race/Ethnicity		
Hispanic/Latino	2	18.0
Multiple Race	3	27.0
White	6	54.0
Education level		
Bachelors	3	27.0
Masters	8	72.0
Age		
25-34	5	45.0
35-45	4	36.0
45-55	2	18.0
Grade Teaching During Study		
4^{th}	5	45.0
5^{th}	4	36.0
6^{th}	2	18.0
Years of Experience Teaching		
<1	1	9.0
1-5	5	45.0
6-10	0	0.0
11-15	3	27.0
15+	2	18.0

Note. $N = 11$.

During the second week of the 2018-2019 school year, I invited teachers to participate in this action research study by presenting at a mandatory professional development session. I provided teachers with a verbal explanation of the purpose of the study and provided each with a consent form (Appendix G). I informed potential participants that participation was voluntary and that they would be able to withdraw from the study at any time without reprimand or repercussion. I collected a total of 11

completed consent forms from those who chose to participate and sent them a confirmation email (Appendix H) with a link to the presurvey. All 11 participants attended each of the four workshops, completed journal reflections, feedback forms and surveys, but only 6 were selected for interviews. The six interview participants were randomly selected using an online randomized selection website.

Role of the Researcher

As a special education teacher at the school, my role was that of researcher and practitioner. My primary role as a researcher was successfully developing and implementing the IIP professional development modules for the participating teachers and collecting data. I was responsible for facilitating each of the modules, conducting and coding each of the semi-structured interviews and reflection journals, as well as analyzing the surveys. My primary role as a practitioner was to provide support to general education teachers throughout the project by means of providing additional resources on workshop topics and other requested supports such as observations and co-teaching.

Intervention

The IIP focused on effective teaching practices in inclusive classrooms. I designed each of the four 30-minute modules to enhance the content knowledge of general education teachers in the areas of special education classroom supports and services. As part of the professional development modules, participants reviewed recent research, were exposed to new practices, and completed journal reflections on their individual experience and learning. These modules also provided an opportunity for

much needed co-planning and collaboration between general education and special education teachers.

At the school, professional development occurs for two hours every Wednesday, after which teachers have time to meet with their grade-level colleagues to plan instruction for the following week. The intervention was a collection of four professional development modules in a larger "cluster." A cluster is a group of professional development modules focusing on an overall topic. The modules were centered on one topic each: Differentiation, Progress Monitoring, Collaboration, and Behavior Management. Tomlinson (1999) defined differentiation as "an organized, yet flexible way of proactively adjusting teaching and learning methods to accommodate each child's learning needs and preferences to achieve maximum growth as a learner" (p. 14). Progress monitoring is the process of gauging students' mastery or lack of mastery over a period of time via formal and informal assessments. Collaboration refers to one's ability to work with colleagues within a job location or parents of students. Behavior management refers to the process of stopping or preventing behavior that impedes learning and maximizes the active learning and engagement that takes place during instructional time. I selected these particular topics for the intervention because each addresses common challenges that teachers mentioned during the needs assessment of Fall, 2016.

Blank and de las Alas (2010) asserted that inclusion, as an educational model, should only be implemented after adequate training to properly plan and implement student support. Additionally, they found that student achievement is directly impacted by the amount of training instructors receive (Blank & de las Alas, 2010). As such, the

IIP modules honed in on key components of each topic in order to support teacher development in these areas. It was my goal that each module would ensure that teachers were able to immediately integrate the new strategies or resources in their classroom. Each module was collaborative and inquiry-based, with time for teachers to ask questions throughout as well as explore strategies and resources that best fit the needs of each teacher's classroom. The collaborative and exploratory nature of the modules was important because studies show that teachers feel more positively toward professional learning when it is directly linked to their practice and practical enough to implement the next day in their classrooms (Gaytan & McEwen, 2010). Table 2 shows an overview of the workshops and their respective objectives.

Table 2

Workshop Titles and Objectives

Title	Objective
Collaborating for Student Success	Teachers will be able to utilize lesson study as a means of collaboration.
Classroom Management	Teachers will be able to set and reinforce expectations for classroom behavior by engaging in a discussion about the management cycle.
Cultivating Differentiated Instruction	Teachers will be able to identify various strategies for differentiating instruction by analyzing informational texts in collaborative groups.
Progress Monitoring: For Interventions and Beyond	Teachers will be able to identify strategies and resources for progress monitoring in their classroom.

Study Design

This study was designed as an explanatory sequential mixed methods action research (MMAR) single case study design, meaning the qualitative data was used to explain the initial quantitative results (Creswell, 2015). A MMAR means that only one case was taken under investigation and, after an initial needs assessment in Fall, 2016, there was resulting data collection and analysis in Fall, 2018. Through this study I sought to explore self-efficacy in teacher participants within a cycle of teacher professional development programming as well as how teachers make sense of their professional learning; I focused on the following questions:

1. How are teachers' professional experiences related to their perceptions of special education and teaching students with special needs?
2. How and to what extent does teacher professional development in special education influence their self-efficacy of teaching students with special needs?
3. How do teachers make sense of and apply their professional development cluster to their practice?

RQ1 required qualitative data collection including interviews and written journal reflections to explore the general education teachers' experiences and perceptions of the inclusion classroom. I addressed RQ2 with a one-group pretest-posttest design to assess the impact of the professional development on teachers' self-efficacy of teaching students with special needs. The third research question relied on written journal reflections, feedback forms and interviews to explore how teachers made sense of and planned to apply their professional development learning to their classroom practice.

Instruments and Data Sources

Data collection took place in three phases; pre-intervention, during intervention and post-intervention. In this study, there were four sources of data: (a) self-efficacy presurvey and self-efficacy postsurvey, (b) teacher written journal reflections, (c) semi-structured interviews, and (d) professional development feedback forms. Table 3 outlines the data sources used to address each research question. The pre-intervention data collected prior to the beginning of the professional development was the TEI survey. During the intervention, I presented workshops to participants at the school site and I provided and collected reflection sheets after each professional development workshop. At the conclusion of each workshop, teachers completed a feedback form. Post-intervention measures consisted of a post-intervention TEI scale per participant as well as six interviews.

Table 3

Data and Corresponding Research Questions

Research Question	Instrument	Data Type
RQ1- How are teachers professional experiences related to their perceptions of special education and teaching students with special needs?	Interviews	Qualitative
RQ2- How and to what extent does teacher professional development in special education influence their self-efficacy of teaching students with special needs?	Teacher Efficacy for Inclusion Scale	Quantitative
RQ3- How do teachers make sense of and apply their professional development cluster to their practice?	Journal Reflections, Module Feedback Form, Interviews	Qualitative

Teacher Efficacy for Inclusion (TEI) survey. A modified version of Hollender's (2011) Teacher Efficacy for Inclusion (TEI) survey was utilized as a presurvey and postsurvey for this study (Appendix A). Whereas the presurvey and postsurvey contained the same scale items, the demographic questions were removed from the postsurvey. This scale is based on Bandura's self-efficacy scale and was adapted by Hollender (2011) to focus on teacher self-efficacy based on classroom practice and experience. Hollender's scale measures teacher self-efficacy generally, which is why the scale was adapted to fit more specifically within the context of this study. I adapted the initial survey to include 21 scale items and eight demographic questions. The 21 scale items were delineated into four sub-constructs by conducting a reliability analysis:

efficacy for Differentiation, efficacy for Behavior Management, efficacy for Progress Monitoring, and efficacy for Collaboration. The TEI scale had a 6-point Likert scale (ranging from Strongly Agree=6 to Strongly Disagree=1) and the scale was utilized for both the presurvey and postsurvey.

Written journal reflections. I provided each participant with a reflection sheet for their participation in the study's reflection prompts. Participants were asked to reflect on their knowledge of a particular area before each of the four workshop presentations in writing. One reflection sheet was issued to participants per workshop, with the following prompts: (a) How do you currently differentiate for your students with special needs?; (b) Write down a challenge in classroom management you have had in the past and what you did to try to solve this problem; (c) Define collaboration and how you collaborate throughout a school year to support students; (d) Explain ways in which you currently progress monitor students.

The timeframe for individual participant reflections did not exceed three minutes of the allotted workshop time and prompts were provided prior to participants writing. The completed reflection sheets were collected after each module. The written journal reflections served as qualitative means of assessing the effectiveness of the professional development module content and application. Participants completed the written journal reflections at the beginning of each workshop by responding to a predetermined prompt. They provided insight into their prior knowledge about one of the workshop topics at each of the workshops. I provided a summary of the reflections to the school and district for future reference and potential inclusion in future iterations of the IIP.

Module feedback forms. At the end of each professional development module, teachers received an open-response feedback form consisting of two questions (Appendix D). Unlike the aforementioned journal reflections that asked participants about their prior knowledge on the workshop topic, the feedback forms specifically asked how participants planned to implement their new learning into their classroom practice. The questions were the same for each of the four modules:

1. How do you plan to incorporate [workshop focus] into your instructional practice? What was one thing you learned today and plan to implement in your classroom/practice?
2. Would you like additional resources regarding today's topic to support you in your instructional practice?

The feedback form was designed to gather information regarding each participant's intent on how they planned to apply the new professional development learning. Open-ended questions were utilized versus a rating scale to gather responses directly from participants in their own words.

Semi-structured interviews. Six teachers were randomly selected from the participants to participate in semi-structured interviews and invited via email (Appendix B). I conducted interviews on an individual basis after all the intervention modules were completed, using an interview protocol (Appendix C). The interviews served as a qualitative measure to explore how teachers made sense of their learning in professional development modules, and their application to practice after the intervention in the areas of Differentiation, Progress Monitoring, Behavior Management, Collaboration. The interviews also provided insight into how teachers made sense of their professional

learning. One question from the interview protocol that addressed this area was: "When you engage in new learning in a professional setting, how do you begin the process of integrating your new learning into your own classroom?" The interviews were guided by nine pre-established questions and were intended to remain semi-structured to allow for deep discussion of each participant's perspective. Each interview ranged in length from 28 to 58 minutes and was audiotaped. Transcripts from the recorded interviews were typed for analysis, at which time the audio for each interview were deleted.

Procedure and Timeline

Table 4 provides a timeline for research implementation. Consent to conduct research was obtained from both the superintendent (Appendix E) and school principal (Appendix F) in May 2018. The TEI presurvey was sent to participants via email on August 15th, 2018. The IIP began Wednesday, August 22nd, 2018 with a module on Collaboration, and the subsequent workshops occurred on Wednesdays through September. Topics of the remaining modules included Behavior Management, Differentiation, and Progress Monitoring. I designed and facilitated the professional learning modules, providing teacher participants with instructional strategies and resources to implement each area of focus in their classroom. Teachers completed a reflection and a post-module feedback form during each workshop.

Table 4

Data Collection Inventory and Implementation Timeline

Timeframe	Actions and Instruments	Procedures
May 2018	Obtained Superintendent and Principal consent to conduct research	• Presented at private meeting regarding the study
August 15th, 2018	Participant recruitment	• Presented at professional development session informing teachers of study • Consent forms distributed and collected
August 15th, 2018	Teacher Efficacy for Inclusion (TEI) presurvey	• Sent confirmation emails with survey link
August 22nd, 2018	Facilitated session #1- Collaboration	• Presented content to teachers and time for collaboration, provided the pre-reflection and feedback form
August 29th, 2018	Facilitated session #2- Behavior Management	• Provided content to teachers and time for collaboration, provided the post-reflection and feedback form
September 12th, 2018	Facilitated session #3- Differentiation	• Provided content to teachers and time for collaboration, provided the pre-reflection and feedback form
September 26th, 2018	Facilitated session #4- Progress Monitoring	• Provided content to teachers and time for collaboration, provided the post-reflection and feedback form
September 26th, 2018	Teacher Efficacy for Inclusion (TEI) postsurvey	• Sent emails with the link
October 2-5th, 2018	Conducted Interviews (n=6)	• Sent invite email and scheduled with individual teachers.

Data Analysis

This research study was designed as a sequential quantitative-qualitative mixed methods action research (MMAR) single case study. In order to answer the research questions effectively, I collected the preliminary quantitative data: the TEI pre-intervention survey. After collecting and analyzing the initial quantitative data, I created the semi-structured interview questions and designed the workshop presentations and materials. Next, I collected the qualitative data, including feedback forms, journal reflections, and post-intervention interviews (n = 6). The final component was the post-intervention quantitative data: the TEI post-intervention survey. The quantitative data were analyzed separately and then supplemented with qualitative data to better understand the findings.

Quantitative analysis. Quantitative data from the TEI presurvey and the TEI postsurvey were computed using the Statistical Package for Social Sciences (SPSS) software. Descriptive statistics were calculated on each of the four constructs: Differentiation, Progress Monitoring, Behavior Management and Collaboration. The descriptive statistics show how participants responded to each of the questions within the construct. After analyzing the construct responses individually, I also completed a pre to post TEI survey comparison test. The scale responses were analyzed using SPSS version 24 for Mac. The Likert scale items on the presurvey and postsurvey produced means to compare and contrast regarding the participants' self-efficacy on each item. Given the small number of participants (n = 11), the frequency data are presented (i.e. pre to post intervention TEI scale data) to examine growth. Allua and Thompson (2009) asserted that the "t-test is used to test the statistical significance of the difference in means between

two groups (a dichotomous independent variable) on some dependent variable measured at the interval or ratio level."

Fraenkel and Wallen (2005) contended that, "reliability refers to the consistency of scores or answers from one administration of an instrument to another" (p. 152). Due to the fact that I adapted the TEI scale from its original format, I conducted a reliability analysis of the four constructs via a pilot survey during Fall 2017 (see Table 5). A reliability analysis is necessary in order to determine if a data collection instrument is reliable and valid (Plano Clark & Creswell, 2010).

Table 5

Teacher Self-Efficacy Survey Estimates (n=18)

Construct	Within Construct Items	Coefficient Alpha Estimate of Reliability
Differentiation	Items 1-6	.921
Progress Monitoring	Items 7-11	.805
Behavior Management	Items 12-16	.861
Collaboration	Items 17-21	.788
Overall Alpha	Items 1-21	.938

According to Plano Clark and Creswell (2010), an instrument is reliable when scores are consistent, and it is valid when scores are meaningful. To measure the internal consistency and overall reliability of the modified TEI scale, I conducted a coefficient alpha report, also referred to as a Cronbach alpha report, through SPSS. Fraenkel and Wallen (2005) asserted that internal consistency measures the extent to which survey items are consistent. When Cronbach's alpha (a) is equal to 0.7- 1.0 the survey questions within a construct relate to one another at a high level, which increases reliability. If for

any reason the Cronbach's alpha is below 0.7, the survey questions should be modified and re-piloted, as a best practice, to increase internal reliability. Within my modified version of the TEI scale, three constructs presented highly correlated alphas: Differentiation (a= .921), Progress Monitoring (a= .805), and Behavior Management (a=.861). The fourth and final construct, Collaboration, measured a= .788, which is moderately high. The overall Cronbach alpha for the survey was .938, which shows a high correlation between the survey constructs I selected for inclusion in the final survey instrument; Differentiation, Progress Monitoring, Collaboration, and Behavior Management. I also conducted a Cronbach's alpha examination of instrument reliability on the final pre and post TEI survey instruments (see Table 6).

Table 6

Pre and Post TEI Survey Coefficient-Alpha

Factor	Within Factor Items	Coefficient Alpha Estimate of Reliability Pre	Coefficient Alpha Estimate of Reliability Post
Progress Monitoring	Items 7,8,9,10,11	0.914	0.866
Behavior Management	Items 12,13,14,15,16	0.880	0.868
Differentiation	Items 1,2,3,4,5,6	0.718	0.827
Collaboration	Items 17,18,19.20,21	0.700	0.797

Factor 4—Collaboration—may have had the lowest alpha level = 0.70 (pre) and 0.79 (post) because the questions asked about collaboration both within and outside of the school context. For example, survey items 19, 20 and 21 specifically asked participants

about their collaboration within a school context. Question 17 asked about collaboration with parents, which could have been confusing to participants. Question 18, however, asked if participants can apply their learning from professional development to their practice. The participants varied understanding of the question likely led to multiple interpretations other than the intended meaning I hoped for. Questions 17 and 18 seemed less related for this construct, which resulted in a lower alpha score. I attributed the high score 0.86 (post) for Factor 3—Behavior Management— to more clearly written questions and relatedness to the overall construct of Behavior Management.

Qualitative analysis. I used the HyperResearch version 3.7.3 qualitative analysis software for Mac to code the qualitative data. The interviews, journal reflections, and feedback forms were analyzed using grounded theory focused coding. According to Charmaz (2014), coding means "we attach labels to segments of data that depict what each segment is about" (p. 4). She further explained that grounded theory coding "consists of two phases: initial and focused coding" (p. 109). For the semi-structured interview data, I took the following steps to analyze the data: (a) transcribed audio recordings into a Word document; (b) read and re-read the data; (c) coded initially using words, lines, segments, and incidents that participants shared (Charmaz, 2014); and (d) coded a second round using used the most significant codes from the initial coding process to analyze large portions of data (Charmaz, 2014).

During the initial analysis of the qualitative data sources, I identified 137 codes. During the second round of coding I collapsed codes into the most significant codes: background, behavior management, collaboration, differentiation, key statements, mindset, progress monitoring, study impact, and teaching experiences. The process of

collapsing codes involved determining which codes were closely aligned to one another, and could possibly collapse into a single code. For example, initial codes such as "modified student seating" and "adjusted behavior expectation" were collapsed into the differentiation code. Based on the most significant codes, I was able to form themes from the data. The themes for RQ1 were teacher preparation, teacher professional development, and teacher professional experiences. These themes were identified across each of the three qualitative data sources. The themes for RQ3 were affirmation of current practice and interest in collaboration. These themes were also identified across each of the three qualitative data sources. Table 7 provides details regarding the quantity of the qualitative data.

Table 7

Description of Qualitative Data Sources Collected for IIP

Data Source	Word Count
Semi-Structured Teacher Interviews	31,037
Teacher journal reflections	4,303
Teacher feedback forms	873
Total Word Count	36,213

Qualitative Validity and Reliability

According to Fraenkel and Wallen (2005), **"**validity refers to the appropriateness, meaningfulness, and usefulness of the inferences a researcher makes." Validity is particularly meaningful in qualitative action research because as Fraenkel and Wallen (2005) contended, "whether research findings are valid depends on the amount and type of evidence there is to support the interpretations researchers wish to make concerning

data they have collected." In order to ensure validity within this study, I employed two strategies including member checks and rich thick descriptions.

According to McMillan & Chumacher (2006), member checking involves, "informally checking with participants for accuracy" regarding their initial responses. After collection of each qualitative source, I consulted the participants regarding their responses to ensure accuracy. This process included having each interview participant and workshop participant read over the transcripts of their feedback forms, reflections and interviews. I also conducted member checks upon initial analysis of the data to allow study participants to correct any errors in my interpretation of what they previously shared or provide additional information. Creswell (2014) deemed the second opportunity to member check after initial findings as a way to ensure accurate portrayal of participant experiences.

According to Creswell (2014), rich thick descriptions are a necessary component of qualitative research in order for readers to determine transferability. Rich thick descriptions include providing detailed accounts of the participants, setting, data collection and analysis techniques in order for readers to identify areas of similarity and determine if the study findings might be transferable to their context. I have included study timelines and rich thick descriptions regarding data collection and analysis to support this area of validity.

Throughout this chapter, I have detailed the methodology of this action research study. By providing the data sources, I was able to explain how each data source related to the research questions. In addition, I provided a timeline for this study including

beginning and end dates, as well as my data analysis techniques for the quantitative and qualitative data.

CHAPTER 4
FINDINGS

The purpose of this study was to explore the influence of a new professional development cluster on teacher self-efficacy in supporting students with special needs as well as examine how teachers make sense of new professional learning. The sources gathered to explore the answers to this research study included qualitative data and quantitative data. The qualitative data included 44 journal reflections, 44 feedback forms, and transcripts from six semi-structured interviews. The quantitative data included statistical data responses from the 11 participating teachers on both the Teacher Efficacy for Inclusion (TEI) presurvey and the TEI postsurvey.

In this chapter, I present findings from analysis of each research question, and provide supporting evidence through participant quotes, journal reflection responses, statistical analysis, and feedback responses. The following research questions were examined:

RQ1: How are teachers' professional experiences related to their perceptions of special education and teaching students with special needs?

RQ2: How and to what extent does teacher professional development in special education influence their self-efficacy of teaching students with special needs?

RQ3: How do teachers make sense of and apply their professional development cluster to their practice?

Research Question #1 Findings

The qualitative data from participant semi structured interviews (n = 6) responses were analyzed to address RQ1: *How are teachers' professional experiences related to*

their perceptions of special education and teaching students with special needs?

Participant responses to interview questions 1, 2, 3, 4, 5, 6, and 7 (see Appendix C) addressed the research question. This qualitative data was analyzed using grounded theory (Charmaz, 2014). The themes that emerged from the data revealed quite a bit about the perceptions that teachers have about special education and their ability to teach students with special needs based on their professional experiences.

Teacher preparation. The theme of teacher preparation involved two subthemes including traditional and nontraditional preparation that participants completed in order to teach, specifically analyzing how the preparation added to their repertoire of knowledge and perceptions of special education. This theme (and correlating subthemes) was identified with responses from the first interview question, which asked participants to share how and why they became educators. Participant 4 mentioned:

> I went to [a state university's masters program] forum seminar and it was really eye opening that you could be in the classroom that quick. It was an eighteen-month program and that was really appealing to me. I've always been very driven and I like the rigor of it, even though you're in the classroom you're still learning, doing hands on learning. And you're able to complete your master's degree within that scope of time—that eighteen months. And it was, it has been very rewarding.

Participant 4's response speaks specifically of a formal teacher-training program that is accelerated so that teachers are in a classroom of their own within 18 months. Participant 4's experience was mixed with both academic work and in classroom training as he specifically stated that the program was designed with "hands on learning."

Participants 1, 4, 5, and 6 all completed the same traditional teacher preparation program but in different years. Participant 5 stated:

> So I got my masters with [a state university's masters program], an accelerated program, in a year. And then graduated in December 2017 and then I started teaching in January 2018.

Participant 1 shared her route to finding the teacher preparation program and deciding to teach, she stated:

> I was substituting in the Washington School District and I was in a 4th grade classroom and I gave the instructions of what they were supposed to do based on the teacher's information and he [a student] threw a fit. Like he was so mad and he yelled at me. And I didn't say anything to him. I let him calm down and then after like five minutes I walked over to him and I said, 'Can I help you? Is there something you don't understand? Or is there something going on that you need to talk about' and he said, 'Yes I need help.' And I said 'okay, let me break it down to you another way or show you what is expected of you.' And then he was like 'okay, thank you' and he got to work. And then he started crying after and I was like, 'oh my gosh are you okay?' And he's like, 'nobody has ever helped me the way you've helped me' and I was like this is for me. Like they need somebody who cares. So after that I enrolled in [a state university's masters program] and pursued my degree from there.

Participant 1's response outlines having some experience in the education setting as a substitute teacher. In her teacher preparation she had a combination of in the classroom

experience substituting (nontraditional teaching experience) and then decided to pursue a traditional teacher preparation program.

Participant 6 stated:

> I went to [a state university's masters program], as you know. And [in the masters program] you go into different classrooms and then instead of student teaching, I just started working in fifth grade. And that was my first year at [Progressive] last year and then this is my second year.

Here Participant 6 highlighted the structure of the program that allowed student teachers to work alongside more experienced teachers in several classrooms and grade levels throughout the program.

The second subtheme of nontraditional teacher preparation was supported by Participant 2's response. She stated:

> I started teaching with Teach for America, so I actually went through the process in college. Oh, I had an advisor in college, I know a lot of people don't use their advisors but I did. And I filled out a survey, like one of those that you pay for. And after looking at that he said, it looks like you're going to need to find a career in nonprofit area or that sort of thing. And there was a career fair, like a nonprofit career fair and Teach for America and AmeriCorps, Peace Corps all of those were there. And I applied never thinking I would get it, but I did. And I was placed in [town]. Yeah, so my first teaching experience was here in [this city].

Participant 2's response differs in comparison to that of Participants 1, 4, 5, and 6 because the teacher preparation that she completed was a nontraditional route. In her own experience she committed to teaching prior to receiving any formal training and was

trained through classroom teaching experience and professional development. She further described her teacher training program saying, “When I joined the Corps it was, I’d say officially 2007. But then I did my masters and did that in 2012. And that was in ESL and Bilingual Education in Wisconsin.” Participant 2 shared that after completing a nontraditional route to teacher preparation, she continued on to complete a traditional teacher preparation program at a university.

Participant 3 disclosed that she also took part in a nontraditional route to becoming a teacher. She shared:

> When I was a senior in college, they said ‘if you think you’ll ever want to teach K-8 here’s this test you can take and you’ll get your K-8 certification’ and so I’m like ‘I will never teach those little K-8 kids but I’m taking it anyway and I did and I passed it.’ So that was how I could get reciprocity. So then this man here in Arizona told me you can get reciprocity with California, all you’re going to have to do is take, you know the Arizona history, and whatever. So I went back to California, I lived there for a month at my sister’s. I took two classes, a special ed class, a technology class- two one month classes- recertified in California, came back here, took Arizona history.

Here Participant 3 outlined the ease of gaining a teaching certification in the mid 1980s, specifically disclosing that she took one exam, and two courses in order to begin her career as an educator. This was clearly a nontraditional route, since she did not enroll in a program that offered courses and hands on learning. The courses that she enrolled in were prerequisites to entering the classroom. Beyond the traditional and nontraditional pathways to becoming teachers, participants were also asked about the special education

preparation that they received. When asked how many courses they completed to prepare them to support students with special needs, their responses ranged. Table 8 reflects their responses.

Table 8
Participants Special Education Course Quantities and Focus

Interviewee Number	Quantity of Courses Taken to Prepare to Support Special Education Needs	Course Focus
Interviewee 1	1	Differentiation
Interviewee 2	1	Phonics Approach
Interviewee 3	1	Differentiation
Interviewee 4	3	Differentiation, Reading Strategies, Math Enrichment and Scaffolding
Interviewee 5	1	IEPs and Differentiation
Interviewee 6	1	Differentiation

Within this first theme, and its correlating subthemes, participants noted that in their teacher preparation there was a clear lack of course offerings to prepare them to teach students with special needs. This lack of course offerings was evident in both the traditional and nontraditional teacher preparation program. In the member checking phase, participants agreed that as a result of insufficient courses in special education related topics and authentic field experiences with students with special needs, they felt unprepared to teach students with special needs. One notable finding is that this lack of preparation or course offerings was consistent across both the traditional and non-traditional teacher preparation routes. These subthemes and overall theme of teacher

preparation led to the assertion that teacher perceptions of teaching students with special needs and their perception of special education overall was unclear when they did not have adequate preparation.

Professional development. The theme of professional development involves formal and informal trainings that study participants took part in regarding supporting students with special needs. Training that participants sought out independently in regards to the area of special education was included in this theme of professional development This theme was delineated in participant responses for those that did receive professional development in special education related topics. This theme was identified from responses to the second interview question, which asked participants to share about any trainings they had taken part in outside of their teacher preparation programs to enrich their knowledge of teaching students with special needs. Participant 6 shared:

> There's like a free online workshop thing. They're little videos with quizzes. It's like Sanford, I don't know if it's Sanford Harmony. It is Sanford something. Inspire? I can show you the website. It's like these little mini videos. They're anywhere from 15 to 30 minutes usually, some are longer. And it's backed on research but they condense it for you. It's almost like a TED talk. So I would watch different ones about managing behavior, about like how to support students with trauma. Cause they have a bunch of different topics and then you get to choose based on the topic. I like those because they're like at my own pace. Because as you know school life gets busy and I can't necessarily dedicate that much time. But every month I can go to this PD or this workshop. I can dedicate like, okay, I have down time I can do this. Or maybe while I'm filling out report

> cards I can like watch this video and like get some tips or ideas. So that's really nice.

Here, Participant 6 shared about professional development training that she sought out on her own due to having deficits in various areas of supporting students with special needs. She shared of the benefits of this particular program because, as she noted, it was free of charge and also available on demand online. She furthered her praise for this flexible professional development stating:

> It's free. That's why I do it. So you just have to make an account with them. But it's just a free. And they log everything. You can actually like print out your certificates and have it as proof like 'oh I participated in these events' type of thing. Or these workshops. They actually used a couple in the [state university's masters program] program. And since I already had an account with it. I was like "oh this is actually really helpful." It's kind of like Teach Channel where they have a bunch of videos and you can like choose what you want to learn. And this one is kind of nice because it has not just experience but research papers and it'll say the link to the research paper. So you could read it on your own if you want in your spare time.

In the aforementioned text, Participant 6 shared about the research basis for the additional professional development that she partakes in outside of her workplace offerings. She noted that in addition to being free, the courses were initially introduced to her in her traditional teacher preparation program, and that she began more so using the resource after graduation and being in the classroom.

Participant 2 also completed additional professional development outside of her

nontraditional teacher preparation program. She shared:

> I forgot that I got a lot of professional development from Teach for America. You know like every month and then observations from them.

In this response, Participant 2 highlighted the training provided by her nontraditional teacher preparation program as well as the frequency of the training. Later in her interview she noted specifics about the trainings, stating:

> I feel that a lot of the progress monitoring came from Teach for America because that was the focus was on collecting data and really showing that the TFA teachers are making gains in the classroom.

Here she stated that her current practice of tracking students' mastery throughout the school year came from her trainings in her nontraditional teacher program. Interestingly, in the field of special education, progress monitoring is considered an integral part of supporting a student with special needs and was highlighted as a construct within the TEI pre and postsurvey that study participants completed.

This second theme, professional development led me to the assertion that professional development in special education related topics positively impacts teachers perceptions of special education because they gain a wider repertoire of strategies to implement with students. Additionally, the participant responses reflected that professional development was immediately applicable to their classroom practice and realities in teaching, whereas the teacher preparation was prior to them having their own classroom.

Teaching experiences. The theme of professional teaching experiences emerged from the rich descriptions that participants provided regarding their on-the-job

experiences with students that supported their understanding of special education and their role as an educator. This theme revealed two subthemes including professional experiences in the classroom and experiences with colleagues. This theme and the correlating subthemes were identified with responses from interview questions 3, 5, 6, and 7. Participant 2 shared:

> And I observed this amazing third grade classroom my first two years of teaching there and I would say that I learned a lot from her too. Basically from watching other teachers was really helpful.

Here, Participant 2 shared about learning from a more experienced teacher by observing, which correlates to the subtheme experiences with colleagues. She expressed that the impact that observing had for her was positive and that observing another teacher had implications on her own classroom practice. Participant 2 went on to share:

> I had a student who he was originally an English Language Learner in kindergarten he came into the school and by about third grade we started noticing some and I'm probably not gonna describe it correctly but not socializing properly. He seemed to withdraw a lot, doing more parallel play just kind of not interacting with other students. And just some other behaviors that we noticed were different so we had him evaluated and its pretty tricky of course with someone who comes into the classroom in kindergarten with no English skills and then to say that we think there's something else here other than a language thing you know, other than a language challenge. So we, you know, it was a battle of course trying to work with the parents and explaining you know there are some other evaluation we need to do. But eventually we were able to have him tested, I

> think he was identified as being on the autism spectrum and placed into supports. So the way they did that was any classroom that had special ed students were with a certified teacher so he was always having support from a certified special ed teacher. So I'd say that was successful.

This particular experience helped to shape Participant 2's perspective of special education because it forced her to advocate for a student who exhibited needs that exceeded the supports that were being provided to him. Due to Participant 2's diligence, the student began receiving specialized support and Participant 2 came to understand the referral process for identifying a student with special needs.

Another teaching experience in the classroom was shared by Participant 3 who stated:

> You know what I really feel helped me the most was my first year teaching was I had a kid in my class who was a resource kid. And that kid, he didn't come in, he had like you know a disability, or problems learning but he still did everything that the rest of the class did. He tried to do my homework, I think he had homework from the resource guys too. And he just still showed me that you can still do everything and maybe not all of it or maybe a modified version of what everybody else is doing but you can still really work and really try.

Here Participant 3 shared a specific experience in the classroom with students. She stated that a student with special needs who was not limited by his learning impacted her perception of special education. She expressed that this student was invested in all of the classroom activities and this in turn helped her to see the student as capable instead of

unable to complete various task due to their disability. In what follows I summarize the themes and subthemes of RQ1.

Research Question #1 summary of findings. Results for the first research question (shown in Table 9) indicate that interview participants' perceptions of special education and their abilities to teach students with special needs was impacted directly by their teacher preparation, professional development, and their experiences in teaching. Based on the interviewees' responses, their teacher preparation programs left them with unclear expectations of special education and feelings of inadequacy when it came to entering their own classrooms. Participants' responses revealed that engaging in chosen professional development provided positive perceptions of special education because interviewees felt it was demystified and manageable. The third and final assertion from RQ1 was that being in the classroom and engaging with colleagues demystified special education and supporting students with special needs.

Table 9
Themes, Subthemes and Assertions from RQ1

Themes and Sub-themes	Assertions
Teacher preparation 1. Traditional teacher preparation program 2. Nontraditional teacher preparation program	Unclear expectations and feelings of inadequacy based on lack of course offerings
Professional development	Choice professional development positively impacted teachers perceptions of special education because they gained a wider repertoire of strategies to implement with students.
Teaching experiences 1. Teaching experiences in the classroom 2. Experiences with colleagues	On the job experiences with colleagues and students further made special education understandable to teachers.

Research Question #2 Findings

I analyzed the quantitative data collected from the pre and post TEI survey as well as responses from the interview questions to address RQ2: *How and to what extent does teacher professional development in special education influence their self-efficacy and planned practice of teaching students with special needs?* Quantitative data sources included 11 TEI presurveys and 11 TEI postsurveys.

There are several parallels that are evident in the data findings of the first two research questions of this study. In the previous section, I found that the teacher preparation programs that participants completed prior to gaining their own classrooms were not the primary or exclusive authority in preparing them to teach students with special needs. Instead, I found that the teachers' perceptions of special education and their ability to teach students with special needs was impacted by their teacher professional development after their job placement as well as their teacher interactions with peers and colleagues at their school site. RQ2 expands on this understanding of teacher learning impacting their teacher experiences by showing participants' self-reported confidence before and after a cycle of professional development.

Table 10 shows the statistically significant difference between the four constructs of Differentiation, Progress Monitoring, Behavior Management, and Collaboration. Table 10 results are presented in absolute difference (AD), standard deviation (SD), probability (p), and degree of freedom (df). I conducted a paired-samples t-test using SPSS to determine which of the constructs revealed a strong association with general education teachers.

Table 10

Paired Samples T-Test Matrix

	C1: Differentiation	C2: Progress Monitoring	C3: Behavior Management	C4: Collaboration
C1: Differentiation		AD= -.112 SD=.564 *p*= .409 df=10	AD= -.034 SD= .528 *p*= .783 df=10	AD=.265 SD=.748 *p*= .151 df=10
C2: Progress Monitoring			AD=.077 SD=.700 *p*= .643 df= 10	AD= .377 SD= .820 *p*=.067 df=10
C3: Behavior Management				AD=.300 SD= .648 *p*= .066 df= 10

Note. AD = absolute difference between factors, SD = standard deviations, *p* = significance levels, and df = degrees of freedom. Confidence levels specified at 95%. *indicates results were statistically significant.

As shown in Table 10, the absolute difference between constructs one and two was -.112, between constructs one and three was -.034, and between constructs one and four was .265. The absolute difference between construct three and two was .077, between four and two was .377 and between four and three was .300. Standard deviations for the paired sample t-test ranged from .528 to .820, which indicates that the data points are "spread out over a wider range of values" (Cohen, 1992, p. 157). The *p* values indicate the "strength of the relationships between sample data to determine the likelihood the mean difference occurred by random change" (Ren, 2009, p. 58). Ren (2009) asserted that *p* values less than .05, indicate a lower chance of these responses happening randomly. I ran the sampled t-test to evaluate whether the mean attitude response of participants on two of questions was substantively different or whether the difference observed in the data is simply due to sampling error. I began by asserting the

null hypothesis that there was no difference existing between the question responses from participants. Next I collected the data and computed the difference between two constructs at a time, which is shown in Table 10. The declared alpha level of .05, means that we are willing to incorrectly reject the null hypothesis 5 out of 100 times. I computed the t statistic based on the data I collected and obtained the observed *p*-value of this test statistic between the two constructs, which is also exhibited in Table 10. Then I compared the observed *p*-value with the priori alpha level (.05). As the paired sample t-test matrix in Table 10 shows, each of the paired constructs displays an observed $p>.05$, so I failed to reject the null but am willing to be wrong 5 out of 100 times. There were no significant changes in any of the constructs from pre- to post-survey. In what follows, I present findings from each of the four survey constructs (Differentiation, Behavior Management, Collaboration, Progress Monitoring) individually and then together as an entire TEI survey.

Differentiation. RQ2 sought to determine how and to what extent participation in the IIP study professional development workshops would impact participants' efficacy in supporting students with special needs. In order to better understand participant efficacy in the various construct areas, their efficacy was measured prior to participation in the IIP study. By exploring the participants' efficacy prior to the IIP study participation, I determined if there was an increase in response frequencies, if it remained constant, or if it decreased. Table 11 below reflects the response frequency within the Differentiation construct of the TEI presurvey.

Table 11

Survey Response Frequencies (Differentiation)

Item	Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree
Q1: I can develop a system for assessment that is fair for all of my students.	18.2% (2)	63.6% (7)	18.2% (2)	0%	0%	0%
Q2: Given a situation in which a student with a disability in my class is confused, I can get him/her to understand by providing alternative explanations or examples.	18.2% (2)	63.6% (7)	18.2% (2)	0%	0%	0%
Q3: I can craft appropriate learning questions for both my students with and without learning and/or behavioral disabilities.	0%	63.6% (7)	36.4% (4)	0%	0%	0%
Q4: I can implement alternative instructional strategies with students both with and without disabilities when teaching.	0%	72.7% (8)	27.3% (3)	0%	0%	0%
Q5: I can adjust lessons to the proper level for my students with learning disabilities.	9.1% (1)	36.4% (4)	54.5% (6)	0%	0%	0%
Q6: I can plan/create tasks that students with learning disabilities can complete within fixed time frames.	18.2% (2)	36.4% (4)	36.4% (4)	9.1% (1)	0%	0%

The pre TEI survey data indicated that general education teachers believed that they could differentiate for their students with special needs and have very few self-doubts in this overall ability prior to engaging in the IIP. Participants felt the most confident in implementing alternate instructional strategies. Participants felt less confident in their ability to create differentiated tasks, and adjusting lesson content for diverse learners.

The survey data in Table 12 contains descriptive statistics about teachers' responses to the overall Differentiation construct. Teachers' identification with statements about their self-efficacy in differentiating was represented in numerical form so that these statistics could be compared to the postsurvey responses. The 6-point Likert scale that I developed, presented a range from "Strongly Agree" to "Strongly Disagree." I calculated the mean and standard deviation for each statement response within this construct.

Table 12
Survey Response Descriptive Statistics (Differentiation)

n=11

Item	Mean	Median	Standard Deviation
Q1: I can develop a system for assessment that is fair for all of my students.	5.00	5.00	.632
Q2: Given a situation in which a student with a disability in my class is confused, I can get him/her to understand by providing alternative explanations or examples.	5.00	5.00	.632
Q4: I can implement alternative instructional strategies with students both with and without disabilities when teaching.	4.73	5.00	.467
Q3: I can craft appropriate learning questions for both my students with and without learning and/or behavioral disabilities.	4.64	5.00	.924

Q6: I can plan/create tasks that students with learning disabilities can complete within fixed time frames.	4.64	5.00	.505
Q5: I can adjust lessons to the proper level for my students with learning disabilities.	4.55	4.00	.688

The results in Table 12 reflect that prior to engaging in the intervention, participants felt most confident in developing fair assessments (mean of 5.00) and providing alternative examples or explanations to students (mean of 5.00). Teacher responses reflected a moderate sense of efficacy in their ability to implement alternate instructional strategies (mean of 4.73), craft appropriate questions for students (mean of 4.64), and create lessons (mean of 4.64). The lowest level of teacher belief in their ability was in the area of adjusting lesson activities for students with special needs (mean of 4.55). Whereas the participant responses ranged from strongly agree to slightly disagree, the survey responses within the construct of Differentiation demonstrated that teacher respondents mostly felt confident in their ability to differentiate for their students.

Progress Monitoring. Another key aspect of supporting students with special needs in a classroom setting is Progress Monitoring. Progress monitoring is the process by which students' achievement based on standards or goal is assessed throughout the academic year at various points. Table 13 below reflects teacher response frequency within the Progress Monitoring construct from the presurvey. The survey data in Table 13 indicates that study participants believed that they could progress monitor for their students with special needs however, there were some self-doubts in this area. Participants felt the most confident in progress monitoring in the content area of mathematics, as opposed to English Language Arts. Participants felt least confident in

their ability to regularly monitor progress and understanding of students with special needs.

Table 13

Survey Response Frequencies (Progress Monitoring)

Item	Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree
Q7: I can conduct careful and regular monitoring of whether or not students with learning disabilities comprehend what I have taught.	9.1% (1)	45.5% (5)	45.5% (5)	0%	0%	0%
Q8: I can ensure that students with disabilities have successful academic experiences and obtain positive feedback on their work/projects.	27.3% (3)	45.5% (5)	9.1% (1)	18.2% (2)	0%	0%
Q9: I can ensure that my students know their reading level throughout the year.	27.3% (3)	27.3% (3)	27.3% (3)	9.1% (1)	9.1% (1)	0%
Q10: I can ensure that my students know their math performance level throughout the year.	27.3% (3)	54.5% (6)	18.2% (2)	0%	0%	0%
Q11: I can conference with my students to discuss their present levels and/or to set goals.	27.3% (3)	45.5% (5)	27.3% (3)	0%	0%	0%

Table 14 reflects that teachers felt most confident in progress monitoring math performance (mean of 5.09) and conferencing with students to discuss goals and present levels (mean of 5.00). Teacher responses reflected a moderate sense of efficacy in their ability to guarantee successful academic experiences for their students with special needs

(mean of 4.82) and conducting regular progress monitoring (mean of 4.64). The lowest level of teacher confidence was in the area of progress monitoring reading (mean of 4.55). Overall teacher participants felt strongly about their ability to progress monitor for their students with special needs. The survey data in Table 14 contains descriptive statistics about teachers' responses to the overall progress monitoring construct. Teachers' identification with statements about their self-efficacy is progress monitoring is shown numerically. I calculated the mean and standard deviation for each statement response within this construct.

Table 14

Survey Response Descriptive Statistics (Progress Monitoring)

n=11

Item	Mean	Median	Standard Deviation
Q10: I can ensure that my students know their math performance level throughout the year.	5.09	5.00	.701
Q11: I can conference with my students to discuss their present levels and/or to set goals.	5.00	5.00	.775
Q8: I can ensure that students with disabilities have successful academic experiences and obtain positive feedback on their work/projects.	4.82	5.00	1.079
Q7: I can conduct careful and regular monitoring of whether or not students with learning disabilities comprehend what I have taught.	4.64	5.00	.674
Q9: I can ensure that my students know their reading level throughout the year.	4.55	5.00	1.293

Behavior Management. The third construct surveyed was teacher confidence in their ability to behavior manage their students. The Behavior Management construct included reinforcing positive behavior and redirecting undesired behavior to maintain a classroom environment conducive to learning. Table 15 reflects the participants' responses to the survey items within the Behavior Management construct.

Table 15

Survey Response Frequencies (Behavior Management) n=11

Item	Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree
Q12: I can redirect students with disabilities throughout activities without detracting from my other simultaneous teaching responsibilities.	36.4% (4)	18.2% (2)	45.5% (5)	0%	0%	0%
Q13: I can make behavioral expectations clear to students with learning and/or emotional/behavioral disabilities.	45.5% (5)	36.4% (4)	18.2% (2)	0%	0%	0%
Q14: Given students with emotional/behavioral disabilities in an inclusion setting, I can anticipate situations that set them off and lead to disruptive or problematic behavior.	27.3% (3)	45.5% (5)	18.2% (2)	9.1% (1)	0%	0%
Q15: I can establish classroom management systems for students with emotional/behavioral or learning disabilities that support and maintain desired behavior.	27.3% (3)	54.5% (6)	18.2% (2)	0%	0%	0%
Q16: I can integrate alternative behavior management strategies in my class.	27.3% (3)	54.5% (6)	18.2% (2)	0%	0%	0%

Whereas Table 15 reflects that teachers are confident in their ability to behavior manage their classrooms overall, there were some areas with some doubts (evidenced by "disagree" responses). Table 16 takes a closer look at participant responses within the

Behavior Management construct. Table 16 reflects that teachers felt most confidence in making behavior expectations clear to students (mean of 5.27), establishing equitable management systems (mean of 5.09) and integrating alternate management strategies (mean of 5.09). Teacher responses reflected a moderate sense of efficacy in their ability to redirect students during activities without detracting from learning (mean of 4.91) and anticipating challenging behavior situations (mean of 4.91). Overall teacher participants felt strongly about their ability to behavior manage their classrooms.

Table 16

Survey Response Descriptive Statistics (Behavior Management)

n=11

Item	Mean	Median	Standard Deviation
Q13: I can make behavioral expectations clear to students with learning and/or emotional/behavioral disabilities.	5.27	5.00	.786
Q15: I can establish classroom management systems for students with emotional/behavioral or learning disabilities that support and maintain desired behavior.	5.09	5.00	.701
Q16: I can integrate alternative behavior management strategies in my class.	5.09	5.00	.701
Q12: I can redirect students with disabilities throughout activities without detracting from my other simultaneous teaching responsibilities.	4.91	5.00	.944
Q14: Given students with emotional/behavioral disabilities in an inclusion setting, I can anticipate situations that set them off and lead to disruptive or problematic behavior.	4.91	5.00	.944

Collaboration. The fourth and final construct was Collaboration. Within the context of this study, collaboration refers to the teachers' ability to work with colleagues, administration or parents to support students with special needs. This construct aligns to teacher confidence in their ability to partner in student success. Data in Table 17 shows

that participants were mostly confident in the area of collaborating with colleagues and parents.

Table 17

Survey Response Frequencies (Collaboration)

Item	Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree
Q17: I am able to obtain family support when implementing interventions for students with disabilities.	18.2% (2)	36.4 % (4)	27.3% (3)	9.1% (1)	9.1% (1)	0%
Q18: I am able to remind myself of the ideals and benefits of inclusion when I become disillusioned (e.g. through reading, professional development, interpersonal support from others).	18.2% (2)	45.5 % (5)	36.4% (4)	0%	0%	0%
Q19: I am able to effectively partner and collaborate with service providers (e.g. speech therapists, occupational therapists, physical therapists, etc.) in order to adapt lessons and assignments for students of varying abilities.	27.3% (3)	63.6 % (7)	9.1% (1)	0%	0%	0%
Q20: I am able to effectively partner and collaborate with co-teachers (e.g. special education teachers) in order to adapt lessons and assignments for students of varying abilities.	18.2% (2)	72.7 % (8)	9.1% (1)	0%	0%	0%
Q21: I am able to effectively partner and collaborate with school administrators (e.g. master teachers, mentor teachers, etc.) in order to adapt lessons and assignments for students of varying abilities.	27.3% (3)	45.5 % (5)	27.3% (3)	0%	0%	0%

Comparison of presurvey to postsurvey responses. In order to determine if participation in the IIP impacted participants' self-efficacy, the presurvey responses were analyzed in comparison to the postsurvey for each participant. There were no significant changes in the self-efficacy of participants from the pre to post-survey. The overall means for each construct were then analyzed for both the pre and postsurvey and compared to determine if they were consistent, or if they increased or decreased, even if not significantly. The descriptive statistics in Table 18 report the overall teacher self-efficacy in their ability to provide supports to students with special needs by Progress Monitoring, Behavior Management, Differentiation, and Collaboration. The presurvey data is outlined first, followed by the postsurvey data.

Table 18
Pre and Post Survey Construct Means

Item	Presurvey Mean	Postsurvey Mean
Differentiation	4.75	5.16
Progress Monitoring	4.81	5.14
Behavior Management	5.05	5.27
Collaboration	4.90	5.34

Presurvey. The mean of the data suggest that respondents were most confident in their ability to behavior manage students' in their classrooms, because this is the construct with the highest presurvey mean (5.05). The next two constructs that respondents showed moderate confidence in were Collaboration and Progress Monitoring. The final construct, Differentiation had a mean of 4.75. Overall this construct had the lowest self-confidence values as self-reported by survey participants. This construct essentially inquired about general education teachers' confidence in their

ability to differentiate in their classrooms as a way to meet the diverse needs of their students. The low construct mean in Differentiation, in comparison to the other constructs, indicates that respondents were more confident in their ability to Progress Monitor, Behavior Manage, and Collaborate.

Postsurvey. The postsurvey data reflected that participants felt most confident in Collaboration with parents and colleagues. The next construct with the highest self-reported efficacy was Behavior Management with an overall mean of 5.27. Both Differentiation (mean of 5.16) and Progress Monitoring (5.14) reflected fairly high self-confidence from the teacher participants as well. The postsurvey response means in each of the constructs were higher than the response means from the presurvey. By analyzing the presurvey response means in comparison to the postsurvey response means, I am better able to understand the confidence level of participants in supporting students with special needs both before and after the IIP study. With that understanding, I can hypothesize regarding if the IIP study had a direct impact on participants' efficacy in supporting students with special needs as opposed to other factors. In what follows, I analyze the individual responses for each of the 11 study participants.

Table 19 reflects the presurvey and postsurvey responses for each of the 11 survey participants in each of the four construct areas including Differentiation, Progress Monitoring, Behavior Management, and Collaboration. Each of the four constructs reflected an increase in the reported mean scores, but none of these increases were statistically significant. The construct with the highest increase was Collaboration with a presurvey mean of 4.90 and a postsurvey mean of 5.34, participants reported .44 higher confidence in that area after participating in the IIP. The next construct with an increase

was Differentiation, with a presurvey mean of 4.75 and a postsurvey mean of 5.16, participation in the IIP yielded a .41 increase. Progress Monitoring resulted in a .33 increase from a 4.81 mean on the presurvey to a 5.14 postsurvey mean. The final construct of Behavior Management reflected a .22 increase from the 5.05 presurvey mean and a 5.27 postsurvey mean.

Table 19
Participant Pre and Post Self-Efficacy in Each Construct

Participant ID	Differentiation		Progress Monitoring		Behavior Management		Collaboration	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1	4.00	4.67	3.40	4.40	3.80	4.80	4.40	5.20
2	4.67	5.00	4.00	4.40	4.40	5.20	4.20	5.00
3	4.17	4.83	4.00	5.40	5.60	5.40	4.60	5.60
4	4.67	5.00	5.20	5.00	5.00	5.00	4.60	5.00
5	4.50	5.50	4.80	5.40	4.40	5.80	5.00	5.80
6	4.67	6.00	5.60	6.00	5.60	6.00	4.60	6.00
7	5.00	5.50	4.80	5.20	4.80	5.20	4.80	5.00
8	5.17	5.83	5.80	5.80	5.80	5.80	6.00	6.00
9	5.17	4.50	4.60	4.20	5.60	4.00	5.40	4.60
10	5.00	5.00	4.80	5.20	4.80	5.00	4.80	5.00
11	5.33	5.00	6.00	5.60	5.80	5.80	5.60	5.60
Participants with Increase		8/11		7/11		6/11		8/11
Percentage Increase		72%		63%		54%		72%

Note. Participant number does not correlate to interviewee number.

Though not statistically significant, Table 19 shows that participants' self-efficacy was impacted in a mostly positive way. In the Differentiation construct, eight of the 11 participants' self-efficacy increased from the presurvey to the postsurvey. This means that participants felt that they could complete more of the differentiation tasks in their classrooms with their students. In progress monitoring, seven of the 11 participants had

increased self-efficacy in their ability to monitor their students with special needs progress. The third construct of Behavior Management reflected a slightly impressive change for participants with six of the 11 demonstrating increased self-efficacy. The final construct of Collaboration reflected eight of eleven participants with increased self-efficacy in their ability to work with colleagues and parents to support students with special needs.

Interview responses further supported participants' feelings of increased confidence in their ability to support students with special needs, in spite of the lack of increased efficacy survey data. Participant 1 shared:

> I really felt like it was powerful having those four PDs because it really helped me in, how can I better myself in my classroom, how can I do something for my students in a positive way, but also get desired behaviors. It also reminded me of having like those clear concise directions and just built my confidence in supporting my students.

Participant 5 also shared positive impact after participating in the IIP study stating:

> I'm really glad I participated in the study. I definitely feel more confident and know more strategies to support not only my kiddos with IEPs, but all of my students. I see that most of the strategies were really universally effective and I loved that. My students are enjoying class more and I'm actually able to teach now instead of spending large amounts of time redirecting and all that.

I completed a paired-samples dependent t-test to determine if any significant differences could be attributed to participation in the IIP (see Table 20).

Table 20

IIP Factor Differences

Factor		Pretest	Posttest	M_2- M_1	*p*	*d*
Differentiation	M	4.75	5.16	0.41	0.49	0.67
	SD	0.42	0.47			
Collaboration	M	4.90	5.34	0.44	0.08	0.58
	SD	0.16	0.14			
Progress Monitoring	M	4.81	5.14	0.33	0.24	0.37
	SD	0.24	0.17			
Behavior Management	M	5.05	5.27	0.22	0.41	0.26
	SD	0.20	0.17			

Note. n = 11, SD = standard deviations, *p* = significance levels, and d = effect size.

An indication of significance tells us that the effect was not due to chance. Since this study had a relatively small n, it is not a surprise that Table 20 reflects there was no recognized statistical significance however there were changes in the means. In the Differentiation factor the mean increased from 4.75 (SD= 0.42) on the presurvey to a postsurvey mean of 5.16 (SD= 0.47), which is a 0.41 increase though it was not statistically significant. Cohen's (1988) definition of effect size suggests that a standardized difference between two means is another basis of comparison. Cohen's d has a range of effect size with a 0.2 indicating a small effect size, 0.5 indicating a medium effect size and 0.8 indicating a large effect size. Cohen (1988) posited that if means do not differ by 0.2 standard deviations or more, the difference is not statistically significant. Within the Differentiation factor, Cohen's d is 0.67, which indicates a medium effect size. This medium effect size implicates that study participants' self-efficacy did increase after participation in the IIP. Within the Collaboration factor the

mean increased from 4.90 (SD= 0.16) on the presurvey to 5.34 (SD= 0.14) on the postsurvey, which is an increase of 0.44 between the means. Cohen's d reflects a 0.58 for the Collaboration factor, which is a medium effect size. The Progress Monitoring factor showed a mean increase from 4.81 (SD= 0.24) on the presurvey to a mean of 5.14 (SD= 0.17) on the postsurvey. Cohen's d for the Progress Monitoring factor showed a low effect size of 0.37. Within the Behavior Management factor, the mean increased from 5.05 (SD= 0.20) on the presurvey to a mean of 5.27 (SD= 0.17) on the postsurvey. Cohen's d showed a low effect size in this area as well. Statistical significance (indicated by p) is almost always a function of sample size, which means that with larger samples almost any difference will be significant. Due to this reason, I also calculated Cohen's *d* to determine standardized difference between the two means of each factor.

Research Question #3 Findings

Qualitative data from the semi-structured interviews, journal reflections and feedback forms were collected to address RQ3: *How do teachers make sense of and apply their professional development cluster to their practice?* As mentioned in Chapter 3, two themes emerged from the data that revealed how teachers translated their new professional development learning to their actual practice: affirmation of current practice and interest in collaboration.

Affirmation of current practice. The theme of affirmation of current practice was identified based on participant experiences overlapping what they learned or experienced in the IIP study. The two subthemes include critical self-reflection and reminder strategies that participants engaged in after the IIP. This theme and the

aforementioned subthemes were identified with responses from the feedback forms, written journal reflections and interview question 8.

The first subtheme, critical self-reflection, reflected that study participants were vulnerable about not only their strengths, but also areas of challenge and realistic ways to improve. Some study participants immediately were able to identify ways to improve, thus including their planned practice on their feedback forms. Other teachers requested follow-up support on their feedback forms by noting that they would prefer a follow-up meeting or additional information on a topic.

Upon completion of each of the module workshops participants engaged in a journal reflection prompt in which they highlighted any new learning and reflected on what they wanted to implement in their classrooms based on the workshop focus for that day. The prompts garnered responses that were reflective of their present classroom practice and areas that could be improved. After participation in the Differentiation workshop, one participant shared, "I'd like to get more information on a strategic way to do lesson study…a way to evaluate my lesson rather than afterward thinking, 'That was a wreck. But why?' Is there more of a systematic way to reflect?" In this particular example the participant identified a specific area to improve in, which required some reflection on her current practice. Her response was rooted in wanting better outcomes for students and analyzing her own part in the educative experience allowed her to note areas for improvement. She specifically noted the areas of challenge that she had and expressed and her interest in further exploring those areas.

Another participant noted: "[I am] thinking more about how I can differentiate within the "process" and "product." I like the idea of more differentiation with seating

arrangements and a variety of assessments." In this response the participant noted her own responsibility to differentiate the instruction in lessons as well as the desired outcome. This is important because teachers' agreement with the need for differentiated practice acknowledges that students do learn in different ways, and suggests that we cannot reach all students by presenting instructional content the same way. The participant also noted that she already differentiates her instruction, but is specifically interested in doing more with the seating and testing options within her classroom practice.

The second subtheme, reminders, emerged from additional responses to both the written journal reflections and interview question eight. Participants' responses revealed that they set expectations, forcing themselves to further engage with the IIP content and implement strategies in their classroom practice. This process of setting personal expectations intentionally was grouped into the subtheme of reminders. Interview question 8 asked participants how they made sense of and applied their new learning into their practice. When asked of the process of integrating new learning into her practice, Interview Participant 6 shared:

> So if it's like, for instance the positive narration one, I wrote on a sticky note, like, fill in the blank statements for myself. And then I literally posted them all around my room so throughout the day I would constantly find them and be, like, 'Oh yeah, this person is doing a great job'. And, like, phrasing it, instead of saying 'I like' because it has a personal attachment, saying, 'I notice this person sitting in their seat… I notice this person is writing'. And saying physical descriptions of

that. So I put the sticky notes for that one. For collaboration I sent out emails so I would remember.

A workshop participant included the following in her journal reflection from the Progress Monitoring workshop:

> This was a great reminder of progress monitoring strategies that I already do in my teaching.

Interview participant 4 spoke of the Behavior Management workshop sparking a memory of strategies she was familiar with but had not used due to stress and frustration in the classroom. She stated:

> So I remember, a specific one, which was on classroom management. You were talking about the second step that we usually skip which is like recognizing the good behavior. I realized from that PD that I like had been skipping that step. And it was because personally I was frustrated and you know I was feeling overwhelmed and stressed so I skipped that step. So when I heard it in PD, it was like yeah I know I should be doing these things because I learned about them in my teacher preparation program. But it was a good reminder of I need to step back and not immediately jump to a consequence or jump to you know, snapping at them. Or something like that. And so, I immediately, like, the next day, I started to narrate the positive behavior I saw and that helped a lot. And so, for me, the ones that were talking about behavior, those just ring true to my style of teaching and my teaching philosophy. Those are the ones I needed reminding of. Just because I really want to be positive and I really want to be a calm and kind presence for my students.

Interview Participant 1 spoke of the necessity of the reminders to reset her classroom culture. She shared on what the professional development learning did for her, stating:

> What it did is it reminded me, hey, this is what I need to do to have a successful classroom. And, it just showed me what I was missing. Like, I know I'm supposed to do these things but I felt like before having the PD I was like not slacking, but I was already to the point where I was like okay what do I need to do. How do I reset this because I was like struggling. And it just really showed me like you need to focus on this. So to implement things in my classroom I next to my desk, I have like sticky notes that I hang on the wall. So a reminder, reward first then go to like the redirectives. And I've noticed a big change in my classroom in past two weeks just in utilizing that strategy.

Based on participants' responses in the theme of affirmation of current practice, it became clear that they were able to make sense of their new professional development learning by engaging in critical self-reflection and creating physical reminders such as sticky notes or by being reminded of prior learning. The reminders served the purpose of helping participants immediately integrate the new content into their practice of supporting students with special needs.

Interest in collaboration. The theme of interest in collaboration became evident from participant responses rooted in wanting to partner with others. These collaboration requests involved some critical self-reflection and reminders for the study participants; however, members of the administrative team or myself as participant-researcher

facilitated them. This theme was identified with responses from the feedback forms and interview question 8.

Several study participants expressed interest in further collaboration with members of administration or myself on the content focus of various workshops based on their interview responses, written journal reflections and feedback forms. These responses showed that teachers were invested in the learning; however, they needed more specific support to apply to their classroom or particular situations with students. One participant from the Collaboration workshop, wrote the following on her feedback form:

> I would love to meet to go over lesson study together if you have free time. How can I help support SPED team to best support my students? Would you like an email or standard/objective? Or are we supposed to meet?

The above feedback notes a specific area of improvement that the participant wanted to focus on in a follow-up meeting with someone from the special education team.

Interview Participant 6 shared the following regarding Collaboration since her participation in the IIP:

> I asked for help on differentiating for my high students and they responded with things that they've used in the past and things that they feel the standard lends itself to. And then also, every Wednesday we do a reading and writing team in sixth grade since we're departmentalized. And we meet and we talk about what we are going to do for the following week.

This participant's response reflected a shift in their practice since the IIP and also how the learning from the IIP is slowly integrated into personal practice, and then shared

amongst teacher peers in collaborative team meetings or personal meetings with administration.

Participants' responses in the theme of interest of collaboration revealed that they were able to make sense of their new professional development learning by further collaborating with administrators and members of the special education team. The collaboration helped participants begin to understand the IIP study concepts within their context and then supported them in learning how to integrate into their practice of supporting students with special needs.

Research Question #3 summary of findings. Results for the third research question (shown in Table 21) indicate that the teachers made sense of and were able to apply their new professional development learning by engaging in an ongoing process. The ongoing process involved critical self-reflection, reminders and collaborative meetings. The critical self-reflection was a personal assessment of their present levels of teaching performance and ways to integrate new learning to improve. The reminders are one such form of intentionally integrating the new learning, by holding oneself accountable in daily classroom practice. Based on the interview, journal reflection, and feedback form responses the first assertion became evident.

Table 21

Themes, Subthemes and Assertions from RQ3

Themes and Sub-themes	Assertions
Affirmation of Current Practice 1. Critical self-reflection 2. Reminders	Aspects of what teachers already do are affirmed and reminders of small things to change support teachers in understanding and applying new learning to their practice.
Interest in Collaboration	Support from administration or members of the special education team

The first assertion is that aspects of teachers' current practice are affirmed and reminders of aspects to change support teachers in understanding and applying their professional development learning. The third aspect that was integral to participants was collaboration with others at the school site. Participants shared the necessity of collaboration for them to make sense of and apply their professional development learning into their classrooms. While collaborating, participants engaged with members of administration, teacher peers or members of the special education team to further their learning on a particular topic. The second assertion for this research question was that support from administration or members of the special education team supported participants in understanding their professional development content and applying it into their classrooms.

Conclusion

Throughout this chapter I analyzed the findings from the quantitative and qualitative data. My analysis of the data, in relation to my research questions, allowed me to address how participants experiences were linked to their perceived ability to teach students with special needs, their efficacy in supporting students with special needs as

well as how they made sense of their new learning in special education related topics. I found that teachers who had rich professional experiences, that included learning about their role in supporting students with special needs, had high efficacy in their ability to support students with special needs. I also found that after participation in the IIP study, there was an overall increase in efficacy of supporting students with special needs, although those increases were not significant. Last, study participants made sense of their professional learning by collaboration, as well as with personal reminders over time.

CHAPTER 5

DISCUSSION

The purpose of the Inclusive Instruction Program (IIP) study was to examine the influence of a new professional development cluster on teacher self-efficacy in supporting students with special needs. This study also examined teachers' abilities to make sense of their professional learning. The main findings from the IIP study can be useful to the study site, as well as other schools with similar demographics. The first study finding was that teacher preparation programs, professional development, and in-classroom experiences shaped the participants' perceptions of their ability to teach students with special needs. A second finding from the IIP study was that providing participants with professional development on special education related topics did increase their teacher-efficacy on those topics. The third finding from the IIP study was that participants made sense of their new learning by engaging in an ongoing process of implementing new strategies and collaborating with others to better correlate their new learning into their practice. Throughout this chapter I will connect these findings to the theoretical perspectives that framed the study and to previous research. I will also present lessons learned after conducting the study, limitations of the study, and implications for future practice and research.

Findings Related to Theoretical Perspectives and Previous Research

In this section, the outcomes of this study are connected to theoretical perspectives and previous research that provided a framework for the IIP Project. First, I present the outcomes related to the theoretical perspective of constructivism theory. I also discuss self-efficacy theory and sensemaking theories in relation to the IIP study. Next, I

relate the outcomes of the IIP study to previous research on special education professional development for general education teachers.

Findings related to theoretical perspectives. Constructivism researchers assert that people learn best from processing information, reflecting on that information and then implementing the information. Piaget's (1967) research on constructivism suggests that people either assimilate new learning to relate to something they already know or adapt new learning by making changes. Constructivist researchers Jonassen (1991), Posner (2004) and Brooks (1986) further found that learners construct their own understanding based on perceptions of experience. Walczyk and Ramsey (2003) asserted that there are six principles that describe learning from a constructivism perspective.

The IIP study had findings consistent with all of the principles that Walczyk and Ramsey (2003) asserted. The researchers' first principle of constructivism suggested that the learning content had to be relevant to the learners. At the study site, PD for general education teachers on how to support their students with special needs had never been offered before. Within the context of the IIP study, the professional development topics were deemed important to the study participants from the needs assessment interviews in Fall 2016. The study participants expressed their interest in the learning by consenting to participate in the IIP study.

The second principle of constructivism, according to Walczyk and Ramsey, is that learners have a "deep level of interaction with content" (p. 567), which was evident with IIP study participants since they daily engaged with students with special needs in their classroom. Participants shared in the interviews and feedback forms strategies from the workshops that they implemented in their classrooms, as well as outcomes from using the

new strategies. Participants also shared their deep interactions with the content by disclosing how they revisited workshop content in collaborative meetings with administrators. The collaborative nature of the workshops also allowed participants to make sense of their learning, which was revealed in their interviews. The continued exposure and implementation of the IIP study workshop content allowed participants to interact with the content on a deeper level than they would have if they only attended the workshops and did not implement any of the strategies or further discuss ways to implement the strategies.

The third principle was "learners must be able to relate new information to what they already know" (Walczyk & Ramsey, 2003, p. 567). Participants were asked to complete journal reflections and answer interview questions about their knowledge and experiences on each of the topic areas. Findings from the study showed that participants had some knowledge of how to support students with special needs and that the workshop content extended their knowledge and made aspects of their responsibilities more comprehensible.

Walczyk and Ramsey's (2003) fourth principle noted that learners must continually "update understanding as a result of new experience" (p. 567). Participants in the IIP study extended their understanding of the workshop topics after the study workshops concluded. Several participants reached out to administration to further their knowledge of ways to support their students with special needs. Participants also disclosed in their interviews that they had perspectives shifts about their teaching practice throughout the duration of the IIP study.

The fifth principle stated that new learning "does not automatically transfer to new contexts to which it is relevant" (Walczyk & Ramsey, 2003, p. 567). IIP study participants expressed that they were not able to implement all aspects of their professional development learning. This was a result of several factors including not fully understanding how to integrate strategies into their classroom, as well as not having enough time. For these reasons, participants were not immediately able to transfer their new knowledge into practice, however they took aspects that were comprehensible and could deliver them some results and integrate those into their classrooms.

The sixth principle stated that participants would become "independent learners if they [were] aware of the process of learning" (Walczyk & Ramsey, 2003, p. 567). IIP study participants were aware of the process of learning because of the workshop objectives. They also each knew the content focus because of the outlined description of the study in the participant consent form. Based on the participant consent forms and workshop objectives, participants became aware of the process of learning and potential learning outcomes for themselves.

The findings of the IIP study are also closely related to Bandura's (1997) self-efficacy theory. Holzberger (2013) asserted that teacher self-efficacy is "their beliefs about their capability to teach their subject matter, even to difficult students" (p. 774). Bandura (1997) suggested four sources of self-efficacy including mastery experiences, physiological activity, vicarious experiences and social persuasion. In this study, participants reported experiencing each of the four sources of self-efficacy. Participants reported mastery experiences on their feedback form responses as well as in the interview responses, sharing how their new learning was transferable into their classroom practice.

Participants also shared their new physiological experiences (attempting new learning) in their interview responses, including their successes and challenges in implementing new strategies. Vicarious experiences were noted when participants shared in their interviews about learning from what others had shared or from discussing workshop content with other participants outside of the study setting. The final source of self-efficacy, social persuasion, was also noted in participant interview responses. Participants shared that fellow study participants further suggested strategies they were initially reluctant to implement.

Weick's sensemaking theory is also helpful in understanding the findings of the IIP study. Weick (2005) described sensemaking with the acronym SIR COPE. He first suggested that sensemaking is *social*, positing that people need to reflect both individually and collaboratively. The IIP study participants were able to engage in individual reflection using their journal reflections, feedback form responses, and interview responses. Collaborative reflection happened throughout the study workshops as participants shared their experiences. Second, Weick considered sensemaking to be focused on *identity*, suggesting that individuals consider a perception of self. In this regard, participants completed the presurvey to share their perceptions of their ability to complete an array of tasks within their job setting. Weick further asserted that sensemaking is *retrospective*, which involves reflection on past behavior. Participants reflected on their past behavior during the interview sessions as well as on the journal reflection responses.

Weick asserted that *cues* were integral to sensemaking because people focus on what they notice to help them learn something new. Several of the study participants

related their new learning to their prior teaching experiences or teacher training. Next, Weick posited that sensemaking needs to be ongoing, and not just a single time. As such, participants engaged with study content over the course of three months.

In order to satisfy this component of sensemaking, participants will have to continue implementing the strategies that were presented to them. Weick suggested that sensemaking should also be *plausible*, which participants' ability to implement the strategies and reports on successfully integrating into their practice did demonstrate plausibility. The final component of sensemaking is *enactment*, which was demonstrated through participants' responses on feedback forms and in the interviews where they discussed aspects of the study that were useful for their own practice. The enactment component of sensemaking was also evident in the study findings that revealed participants were engaging in collaborative meetings with administration and implementing reminder strategies for themselves in order to make sense of and implement their new learning.

Findings related to previous research. As previously noted, I reviewed additional research prior to the implementation of the IIP study. The focuses of the related literature were topics that were germane to the IIP study, including inclusion professional development, teacher self-efficacy, and inclusivity professional development. Previous research about these topics was presented in Chapter 2 and is explored in the next section in relation to the outcomes of the current study.

Findings related to inclusion professional development. Findings connected to inclusion professional development from the current study relate to results of previous research. Royster, Reglin, and Losike-Sedimo (2014) conducted a study with general

education teachers. They found that teachers did not feel confident in their abilities to teach students with special needs initially. Their study found that the general education teachers' confidence could be impacted from the quality of the professional development provided. Their research focused on providing general education teachers with collaboration techniques by way of professional development. After delivering the professional development, the researchers found that participants' knowledge of inclusion increased from presurvey to postsurvey. The results of Royster, Reglin, and Losike-Sedimo (2014) study link to this action research study because, similar to their findings, participants in this study expressed more confidence in their inclusion practices after participation in the professional development. For example, participants disclosed in the interviews that they had more knowledge of how to support their students with special needs. Specifically, they discussed now having knowledge of which strategies to utilize depending on a student's need. I was able to tailor the professional development workshop to the needs of the study setting and the identified teacher needs based on the 2016 needs assessment interviews.

Findings related to teacher self-efficacy. Findings connected to self-efficacy from the current study, had a connection to results of previous research. Male (2011) conducted a study with general education student teachers. Her participants were both students in a masters level teacher preparation program, and classroom teachers. She found that by providing them with additional professional development outside of what was presented in their courses, did positively impact their teacher self-efficacy in teaching students. Male's (2011) study reflected that the student teachers were more confident at the conclusion of the professional development. The researcher's study links

to this study because we were both interested in determining if professional development would impact teacher self-efficacy. The IIP study had similar findings to that of Male (2011), with participants overall expressing more confidence in teaching students with special needs as measured by their responses in the interviews. Unlike Male's study, I did not find an increase in self-efficacy between the pre to post TEI scale responses, likely due to having a small amount of participants. This action research study further differed from Male's (2011) because her participants were student teachers, whereas my study participants were career teachers who were not still enrolled in college level courses.

Findings related to inclusivity professional development. Findings connected to inclusivity professional development from the current study, had a connection to the results of previous research. Schlessinger (2014) conducted a study that was focused on training teachers for inclusivity. The researcher stressed the importance of inclusivity in school practices, particularly stressing that inclusivity is more geared toward school and teacher practices, than a classroom setting. Within the scope of the IIP study, general education teachers were provided with strategies to implement into their own practice in order to foster a classroom of inclusivity and not just inclusion.

Limitations

Limitations are aspects of a study that decrease confidence in the findings due to concerns with validity or reliability. There are four main limitations of the study: (a) a small sample size, (b) experimenter effect, (c) Hawthorne effect, and (d) random sampling for RQ1.

The first limitation of the IIP study was the small sample size. The study included only 11 participants due to my use of convenience sampling (Teddlie & Yu, 2007). At the

first professional development meeting of the school year, I made a presentation about the purpose of the study; 14 teachers initially expressed interest, of whom 11 completed the consent forms and all aspects of the study. I utilized convenience sampling in order to collect information from participants who were readily available at my workplace. For the six interviews, I use purposeful random sampling in order to increase the credibility of the results. These sampling measures were useful for this explanatory mixed methods action research study; however, the findings are not generalizable to other settings.

The second possible limitation of the IIP study is the experimenter effect (Walach & Schmidt, 2010). The experimenter effect is when the experimenter has an influence on the participants performance in the study. Due to the fact that this was an action research study, I knew each of the study participants within the professional context. My position, in additional to my role as researcher, may have caused some bias in the study which could result in invalid results if the study is to be replicated. I mitigated this limitation by ensuring that I scripted the intervention modules and had site administrators read over them for potentially charged words. I also engaged with critical friends to ensure that my codes were appropriate and correlated to what participants shared.

The third possible limitation of the IIP study is the Hawthorne Effect. The Hawthorne effect is when a participant has awareness that they are in a study causing the participant to behave differently (Adair, 1984). A result of the Hawthorne effect is that the study results cannot be generalized to non-study conditions when participants are going about their regular business. The Hawthorne effect suggests that study participants will exhibit a perceived desired change because of the attention around being in the study, and not due to the training received. This relates to the IIP study because I led all

aspects of the study and even provided some one-on-one follow-up to teachers who had requested additional information. My involvement with all aspects of the study and providing additional resources and planning support may have influenced the increased efficacy of the study participants and their ability to make sense of their new learning. I attempted to mitigate this limitation by having the study workshops during the school's designated professional development. In that way participants would regard it as a part of their professional learning and not as a separate study. I also modeled the workshops after the existing professional development format, including collaborative groups and opportunities for participants to engage with literature. In this way, beyond the content being presented, there was not a novelty to the study workshops. Study workshops were also offered to all teachers, so that participants would not assume exclusivity.

The fourth possible limitation is the purposeful random sampling I used to answer RQ1. This is considered a limitation because the IIP study had a total of 11 participants, but only six were selected for inclusion in the interviews because of time constraints. As a result of the purposeful random sampling, the results from RQ1 may be considered unreliable since it was the result of a portion of the study participants experience and not all of the participants. In order to mitigate this limitation, I ensured that the interview participants were randomly selected and that they comprised more than half of the study participant population.

Lessons Learned

I cannot neglect to discuss two of the most important lessons learned from this action research dissertation process that have shaped me into a better educator and

practitioner. In the next section, I will discuss the lessons I learned related to practitioner action research study and professional development.

Practitioner action research. According to Stake and Trumbull (1982), a practitioner is a person engaged in a profession. By this definition, I am an education practitioner because my primary job description includes teaching students with special needs. Practitioner action research involved conducting a research study at one's workplace based on an identified problem of practice. Entering this doctoral program in 2016, I was unaware of the cycles of action research necessary to confirm the problem of practice, develop and validate scale instruments, fine-tune interview questions, and subsequently collect and analyze data. I have learned that the purpose behind having multiple phases of action research is to increase validity and credibility of the methods and eventual findings. Overall, I learned that practitioner action research is incredibly rewarding because it analyzes real-world problems by those that are immediately impacted by them and has the potential to solve those problems.

Professional development. As an educator, attending professional development is a part of my weekly responsibilities. These weekly meetings tend to be times where new instructional strategies are provided in order to improve student performance on state or district wide assessments. Occasionally, the professional development is catered to teacher knowledge of procedure or best practices that support the ease of the profession. What I realized, as a result of this study, is that teachers will never get to teach those instructional strategies if they cannot reach each of their students. Teachers need professional development that is tailored to their needs and desires. The IIP study was

created based on a Fall 2016 needs assessment in which teachers noted a lack of understanding of special education and how to support their students with special needs.

Implications for Practice

Outcomes from the IIP study suggest two major implications for practice. The next section will connect the outcomes of the IIP study with current issues teacher support including the need for frequent teacher needs assessment and the need for differentiated professional development.

The first implication for practice is that teachers at the study site's needs are not being met because they are not being asked what they need. Within the study setting, teachers are not consulted regarding the professional development calendar, and instead have to attend weekly mandated trainings that they may not find interesting or useful. My recommendation based on the participant responses in this study would be to triennially ask teachers what they would like to learn about or what areas they are struggling with as it pertains to supporting their students with special needs. These interests and needs could be aligned to students' district testing schedule and would ensure that teachers are invested in their new learning, but also that the training is tailored to teachers' needs. This implication aligns to special education professional development because it would ensure that at least on a triennial basis that teachers were engaging in learning specific to their needs in supporting their students with special needs.

Related to above, the second implication for practice is that teachers expressed a need for differentiated professional development. Within the study setting, administrators determine the professional development topics and calendar for the year for all staff members. This means that newer teachers and veteran teachers receive the same training

as one another throughout the year. This also means that teachers have no autonomy of their professional learning. The IIP study offers a professional development structure that teachers expressed an interest in based on challenges they were encountering in their classroom practice. School leaders have a responsibility to meet the varying needs of their teachers when it comes to professional training. This includes the needs of the novice teacher who has recently graduated and the veteran teacher who may need new strategies due to the new curriculum. One interview participant said it best when sharing why she participated in the study, she stated, "I felt like I could finally address my own needs just like we do with our students . . . having differentiation for teachers is just as valuable."

Implications for Future Research

Upon completion of the IIP study, there are several areas that can be explored in future cycles of action research. The following section includes recommendations for improving future studying including (a) quarterly surveying teachers, (b) expansion of the IIP, and (c) including more than one school site.

One recommendation for a future cycle of action research would be to develop a survey for quarterly distribution to teachers in order to determine their professional development interests. Similar to what was mentioned in the implications for practice section above, I feel that tailoring the professional development needs to teacher interest will result in more teacher investment in the sessions. Additionally, at the study site, this may have implications for teacher satisfaction surveys, which are collected at the conclusion of each school year.

A second recommendation that participants shared in interviews was for an expanded version of the IIP study in future cycles of action research. For the study, the IIP consisted of four 30-minute workshops that centered on special education related topics. In all actuality, special education spans an array of topics, skills and strategies that could be added to make the trainings more meaningful. Particular topics that would be useful to general education teacher participants could be Autism Spectrum Needs, Supporting Students with Emotional Disabilities or Collaboration with the Special Education Team. These topics would support teachers because general education teachers have students with those needs in their classrooms and could learn about ways to support those students' needs.

The third recommendation for a future cycle of action research would be to include other sites within the district in the IIP trainings. Including additional sites within the district would have to occur after fine-tuning the program at the current setting. Including additional sites is of interest because the study district is a small, with less than ten schools. Providing differentiated professional development based on teacher reported needs could have implications for not only teacher satisfaction but also retention.

Conclusion

The field of education is currently struggling. The struggles include the ever-present teacher shortages and the recent teacher strikes and walk-outs due to working conditions and pay. Whereas pay is something that is contingent on budget, one aspect of working conditions that can be supported is professional development. Professional development can be provided to teachers to help them support the diverse needs of their students daily. With the increasing responsibility of general education teachers to support

students with special needs, it is the responsibility of school and district administrators to ensure that teachers know how to support their students. Through this study I found that general education teachers lacked the experience and training to support students with special needs. After conducting a needs assessment, I found that these same teachers do have a desire to learn of ways to support their students with special needs. The study findings revealed that teachers felt more confident in their ability to support students with special needs, however their efficacy did not increase in a statistically significant manner by engaging in specific professional development. Additionally, the study revealed that teacher participants could make sense of their learning by engaging in reflection and collaborative meetings.

REFERENCES

Adair, J. (1984). The Hawthorne effect: A reconsideration of the methodological artifact. *Journal of Applied Psychology*, *69*(2), 334-345.

Ainscow, M. (2004). *Special needs in the classroom: A teacher education guide* (2nd rev. ed.). Paris, France: UNESCO.

Ainscow, M. & Miles, S. (2008). Making education for all inclusive: Where next? *Prospects*, *38*, 15-34. doi: 10.1007/s11125-008-9055-0

Allua, S., & Thompson, C. B. (2009). Inferential Statistics. *Air Medical Journal*, *28*(4), 168-171. DOI: 10.1016/j.amj.2009.04.013

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, *84*(2), 191-215. doi: 10.1037/0033-295X.84.2.191

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: Freeman.

Blank, R. K., & De Las Alas, N. (2009). *The Effects of Teacher Professional Development on Gains in Student Achievement: How Meta Analysis Provides Scientific Evidence Useful to Education Leaders*. Washington, DC: Council of Chief State School Officers.

Brooks, M. (1986). Curriculum development from a constructivist perspective. *Educational Leadership, 44*(4), 63-67.

Brown, K.S., Welsh, L.A., Hill, K.H., & Cipko, J.P. (2008). The efficacy of embedding special education instruction in teacher preparation programs in the United States. *Teaching and Teacher Education*, *24*(8), 2087-2094. doi: 10.1016/j.tate.2008.02.013

Brownell, M. T., Adams, A., Sindelar, P., Waldron, N., & Vanhover, S. (2006). Learning from collaboration: The role of teacher qualities. *Exceptional Children*, 72, 169-85.

Charmaz, K. (2014). *Constructing grounded theory*. London: Sage.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, NJ: Erlbaum.

Cohen, J. (1992). A power primer. *Psychological Bulletin, 112*(1), 155-159.

Creswell, J.W. (2014). *Research design: Qualitative, quantitative, and mixed method approaches* (Vol 2). Thousand Oaks, CA: Sage.

Creswell, J. W. (2015). *A concise introduction to mixed methods research*. Thousand Oaks, CA: Sage.

Doolittle, P.E. (1995). *Understanding cooperative learning through Vygotsky's zone of proximal development.* Paper presented at the Lilly National Conference on Excellence in College Teaching, Columbia, SC.

Driver, R., Asoko, H., Leach, J., Scotts, P., & Mortimer, E. (1994). Constructing scientific knowledge in the classroom. *Educational Researcher, 23*(7), 5-12.

Ekstam, U., Korhonen, J., Linnanmäki, K. and Aunio, P. (2018). Special education and subject teachers' self-perceived readiness to teach mathematics to low-performing middle school students. *Journal of Research in Special Educational Needs*, *18*: 59–69. doi:10.1111/1471-3802.12393

Fraenkel, J. R. & Wallen, N. E. (2005). Validity and reliability, in J. R. Fraenkel and N. E. Wallen, *How to design and evaluate research in education with PowerWeb*. (pp. 152-171). Hightstown, NJ: McGraw Hill Publishing Co.

Gaytan, J. A., & McEwen, B. C. (2010). Instructional technology professional development evaluation: Developing a high quality model. *Delta Pi Epsilon Journal, 52*(2), 77-94.

Gibson, S., & Dembo, M.H. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology*, *76*, 569-582.

Grskovic, J.A., & Trzcinka, S.M. (2011). Essential Standards for Preparing Secondary Content Teachers to Effectively Teach Students with Mild Disabilities in Included Settings. *American Secondary Education*, *39*(2), 94-106. Retrieved November 22, 2011 from http://www.hwwilsonweb.com/lib.usm.edu

Guthrie, J., Wigfield, A., Barbosa, P., Perencevich, K., Taboada,A. Scafiddi, N., Davis, M. H. & Tonks, S. (2004). Increasing reading comprehension and engagement through concept-oriented reading instruction. *Journal of Educational Psychology*, *96*(3), 403-423.

Halvorsen, A., & Neary, T. (2009) *Building inclusive schools: Tools and strategies for success*. Needham Heights, MA: Allyn & Bacon.

Higgins, C. (2016). *The preparation and self-efficacy of teachers of students with emotional and behavioral disabilities*. (Doctoral dissertation). Retrieved from ProQuest.

Holahan, A., & Costenbader, V. (2000). A comparison of developmental gains for preschool children with disabilities in inclusive and self-contained classrooms. *Topics in Early Childhood Special Education*, *20*(4), 224–235.

Hollender, I. (2011). *The development and validation of a teacher efficacy for inclusion scale* (Doctoral dissertation). Retrieved from ProQuest.

Holzberger, D., Phillip, A. & Kunter, M. (2013) How teachers self-efficacy is related to instructional quality: A longitudinal analysis. *Journal of Educational Psychology*, *105* (3), 774-786. doi: 10.1037/a0032198

Jonassen, D. H. (1991). Objectivism versus constructivism: Do we need a new philosophical paradigm? *Educational Technology Research and Development, 39* (3), 5-14

Kaufman, R., Rojas, A.M. & Mayer, H. (1993) *Needs assessment: A user's guide*. Englewood Cliffs, NJ: Educational Technology Publications.

Knowles, M. (1984). *Andragogy in action*. San Francisco, CA: Jossey Bass.

Leyser, Y., Zeiger, T., Rome, S. (*2011).* Changes in self-efficacy of prospective special and general education teachers: Implication for inclusive education*. International Journal of Disability, Development and Education, 58*(3), 241-255. doi:10.1080/1034912X.2011.598397

Lohman, M.C. (2006). Factors influencing teachers' engagement in informal learning activities*. Journal of Workplace Learning*, *18*, 141-156. doi: 10.1108/13665620610654577

Male, Dawn B. (2011). The impact of a professional development programme on teachers' attitudes towards inclusion. *Support for Learning, 26*(4), 182-186. doi: 10.1111/j.1467-9604.2011.01500.x

McLeskey, J., &Waldron, N.L. (2002) Professional development and inclusion schools: Reflections on effective practice. *The Teacher Educator*, 37, 159-173. doi: 10.1080/08878787302095552 91

McMillan, & Schumacher. S. (2006). *Research in education: Evidence based inquiry* (6th ed.). Boston, MA: Pearson Education Company.

Michael, J. (2006). Here's the evidence that active learning works?. *Advances in Physiology Education, 30*(4), 159-167.

New American Foundation. (2011). Individuals with disabilities education act overview. Federal education budget project background and analysis. Retrieved from

http://febp.newamerica.net/background-analysis/individuals-disabilities-education-act-overview

Odom, S.L., & Bailey, D. (2001). Inclusive preschool programs: Classroom ecology and child outcomes. In M. Guralnick (Ed.), *Early childhood inclusion: Focus on change* (pp. 253–276). Baltimore, MD: Paul H. Brookes Publishing Co.

Odom, S.L., Zercher, C., Marquart, J., Li, S., Sandall, S.R., & Wolfberg, P. (2002). Social relationships of children with disabilities and their peers in inclusive preschool classrooms. In S.L. Odom (Ed.), *Widening the circle: Including children with disabilities in preschool programs* (pp. 61–80). New York, NY: Teachers College Press.

Pajares, F. (1996). Self-efficacy beliefs in academic settings. *Educational Research*, *66*(4), 543-578.

Piaget, J. (1967). *The child's conception of the world*. London, UK: Routledge & Kegan Paul Ltd.

Plano Clark, V.L. & Creswell, J. W. (2010). *Understanding research: A consumer's guide*. Boston, MA: Pearson Education.

Posner, G. J. (2004). *Analyzing the curriculum* (3rd ed). New York; NY: McGraw Hill.

Rebhorn, T., & Smith, A. (2008). *Building the legacy: IDEA 2004 training curriculum*. LRE decision making (Module 15). Washington, DC: National Dissemination Center for Children with Disabilities.

Ren, D. (2009) Understanding statistical hypothesis testing. Journal of Emergency Nursing, 35 (1), 57-59. Doi: 0.1016/j.jen.2008.09.020

Ridolfo, H., Schoua-Glusberg, A. (2011). Analyzing cognitive interview data using the constant comparative method of analysis to understand cross-cultural patterns in survey data. *Field Methods, 23*(4), 420-438.

Rieber, R.W., & Robinson, D.K. (2004). *The essential Vygotsky*. New York, NY: Kluwer Academic/Plenum Publishers.

Royster, O., Reglin, G. L., & Losike-Sedimo, N. (2014). Inclusion professional development model and regular middle school educators. *Journal of At-Risk Issues, 18*(1), 1-10.

Schlessinger, S. (2014). Focus on middle school: Inquiry and intellectualism: Professional development for inclusive education. *Childhood Education,90*(6), 458-461. doi:10.1080/00094056.2014.983022

Smith, S. (2005). *IDEA 2004: Individuals with disabilities education improvement act: A parent handbook for school age children with learning disabilities*. AuthorHouse.

Spillane, J. P., Reimer, T, Reiser, B. J. (2002) Policy implementation and cognition: Reframing and refocusing implementation research. *Review of Educational Research*, *72*(3), 387-431

Stake, R. E., & Trumbull, D. J. (1982). *Naturalistic generalizations*. Champaign, IL: University of Illinois at Champaign. Retrieved from https://gul.gu.se/o/courseId/75466/node.do?id=34595872

Strain, P.S., Bovey, E.H., Wilson, K., & Roybal, R. (2009). LEAP preschool: Lessons learned over 28 years of inclusive services for young children with autism [Monograph]. *Young Exceptional Children, 11*, 49–68.

Teddlie, C., & Yu, F. (2007). Mixed methods sampling: A typology with examples. *Journal of Mixed Methods Research, 1*(77), 77-100. doi:10.1177/2345678906292430

Tobias, S. & Duffy, T. (2009). *Constructivist instruction: Success or failure?* New York, NY: Routledge.

Tomlinson, C. A. (1999). *The differentiated classroom: Responding to the needs of all learners.* Alexandria, VA: Association for Supervision and Curriculum Development.

U.S. Department of Education. (2007). *Parents' guide to the family educational rights and privacy act: Rights regarding children's education records*. Retrieved from http://www2.ed.gov/policy/gen/guid/fpco/brochures/parents.html

Walczyk, J. & Ramsey, L. (2003). Use of learner-centered instruction in college science and mathematics classrooms. *Journal of Research in Science Teaching, 40*(6), 566-584.

Walach, H. & Schmidt, S. (2010). Nonclassical experimenter effects. In N. J. Salkind (Ed.), *Encyclopedia of research design* (pp. 908-909). Thousand Oaks, CA: SAGE Publications, Inc. doi: 10.4135/9781412961288.n269

Weick, K. E. (1995). *Sensemaking in organizations*. Thousand Oaks, CA: Sage.

Weick, K. E., Sutcliffe, K. M., & Obstfeld, D. (2005). Organizing and the process of sensemaking. *Organization Science, 16* (4), 409-421. doi:10.1287/orsc.1050.0133

Wilczenski, F.L. (1992). Measuring attitudes towards inclusive education. *Psychology in the Schools*, *29*(4), 306-312. doi:10.1016/j.tate.2015.09.003

Wilson, G.L., & Michaels, C.A. (2006). General and special education students' perceptions of co-teaching: Implications for secondary-level literacy instruction. *Reading and Writing Quarterly: Overcoming Learning Difficulties, 22*, 205–225.

Yell, M. L. (2006) *The Law and Special Education*. (2nd ed.). Columbus, OH: Prentice Hall Publishers.

APPENDIX A

TEACHER EFFICACY FOR INCLUSION SCALE

Part A: Teacher Efficacy for Inclusion Scale

Instructions: Rate the degree, from "Strongly Agree" to "Strongly Disagree", to which the following statements reflect your personal beliefs regarding the teaching of an inclusion class.

	Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree
Differentiation						
Differentiation is "an organized, yet flexible way of proactively adjusting teaching and learning methods to accommodate each child's learning needs and preferences to achieve maximum growth as a learner" (Tomlinson, 1999).						
1. I can develop a system for assessment that is fair for all of my students.						
2. Given a situation in which a student with a disability in my class is confused, I can get him/her to understand by providing alternative explanations or examples.						
3. I can craft appropriate learning questions for both my students with and without learning and/or behavioral disabilities.						
4. I can implement alternative instructional strategies with students both with and without disabilities when teaching.						
5. I can adjust lessons to the proper level for my students with learning disabilities.						
6. I can plan/create tasks that students with learning disabilities can complete within fixed time frames.						
Progress Monitoring						
Progress monitoring is the process of gauging students mastery or lack of mastery over a period of time via formal and informal assessments.						
7. I can conduct careful and regular monitoring of whether or not students with learning disabilities comprehend what I have taught.						
8. I can ensure that students with disabilities have successful academic experiences and obtain positive feedback on their work/projects.						
9. I can ensure that my students know their reading level throughout the year.						
10. *I can ensure that my students know their math performance level throughout the*						

year.

	Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree
11. I can conference with my students to discuss their present levels and/or to set goals.						

Behavior Management

Behavior management refers to the process of stopping or preventing behavior that impedes learning and maximizing the active learning and engagement that takes place during instructional time.

12. I can redirect students with disabilities throughout activities without detracting from my other simultaneous teaching responsibilities.						
13. I can make behavioral expectations clear to students with learning and/or emotional/behavioral disabilities.						
14. Given students with emotional/behavioral disabilities in an inclusion setting, I can anticipate situations that set them off and lead to disruptive or problematic behavior.						
15. I can establish classroom management systems for students with emotional/behavioral or learning disabilities that support and maintain desired behavior.						
16. I can integrate alternative behavior management strategies in my class.						

Collaboration

Collaboration refers to your ability to work with colleagues within your job location or parents of your students.

17. I am able to obtain family support when implementing interventions for students with disabilities.						
18. I am able to remind myself of the ideals and benefits of inclusion when I become challenged (e.g. through reading, professional development, interpersonal support from others).						
19. I am able to effectively partner and collaborate with service providers (e.g.						

speech therapists, occupational therapists, physical therapists, etc.) in order to adapt lessons and assignments for students of varying abilities.

20. I am able to effectively partner and collaborate with co-teachers (e.g. special education teachers) in order to adapt lessons and assignments for students of varying abilities.
21. I am able to effectively partner and collaborate with school administrators (e.g. master teachers, mentor teachers, etc.) in order to adapt lessons and assignments for students of varying abilities.

Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

*adapted from Hollender (2011)

Part B: Demographic Survey Questions

1. Gender: (please circle one) Male Female Transgender

2. What year were you born? _____

3. Race/Ethnicity (please check one):

☐	☐	☐	☐	☐	☐
American Indian or Alaska Native	African American or Black	Native Hawaiian or Other Pacific Islander	Hispanic/ Latino	White	Multiple Race/ Ethnicity/ Other

4. What is your highest degree earned? (please check one):

☐ High School diploma or GED
☐ Associate Degree
☐ Bachelor Degree
☐ Masters Degree
☐ Doctoral Degree (or Doctorate/Professional degree)

5. Current grade level you are teaching: (please circle)

4th Grade 5th Grade 6th Grade

6. Number of years teaching: _____

7. Number of courses received in teaching children with special needs:

8. Years of experience teaching children with special needs:

_____

Thank you for your participation! Your time and effort are greatly appreciated.
If you have any questions or concerns regarding the pilot study of this questionnaire, then please do not hesitate to contact me directly at EWoodlan@asu.edu or 323-590-5766.
If you have any questions about your rights as a participant in this research, or if you feel you have been placed at risk, you can contact Lauren Harris at (480) 965-6692 or the Chair of Human Subjects Institutional Review Board through the ASU Office of Research Integrity and Assurance at (480) 965-6788.

References

Hollender, I. (2011). *The development and validation of a teacher efficacy for inclusion scale* (Doctoral dissertation). Retrieved from ProQuest.

Tomlinson, C. A. (1999). *The differentiated classroom: Responding to the needs of all learners.* Alexandria, VA: Association for Supervision and Curriculum Development.

APPENDIX B

INTERVIEW RECRUITMENT EMAIL

Greetings,

As a follow-up to your survey completion, you have been selected to participate in an interview. The interview is centered on your experiences with supporting students with special needs, your training as well as any new learning from the IIP courses.

I anticipate that the interview should not take longer than 30 minutes to complete in one sitting. You have the right not to answer any question, and to stop your participation in the interview at any time. This research has been approved by the Institutional Review Board at Arizona State University.

Please contact me at 323.590.5766 or email me at ewoodlan@asu.edu, to schedule a date and time for your interview.

Warm Regards,
Emerald Ochonogor

APPENDIX C

SEMI-STRUCTURED INTERVIEW PROTOCOL

1) Can you tell me about your educational background as far as how and why you became a teacher?
   Prompt: What year did you complete your teacher training?
   Prompt: In your teacher training program, how many courses did you complete to prepare you to support students with special needs?
   Prompt: Do you feel that the courses offered in your teacher preparation program adequately prepared you to teach students with special needs? Please explain.

2) Since the completion of your teacher preparation program, have you completed any additional training to support students with special needs? (For example, professional development offered here at your workplace, or elsewhere)
   Prompt: Why or why not?
   Prompt: Can you tell me about the additional preparation?

3) Tell me about your experiences teaching students with special needs.
   Prompt: Tell me about a success you've experienced in supporting a student with special needs.
   Prompt: Tell me about a challenge you've experienced in supporting a students with special needs.

4) What classroom subjects (content areas) do you teach?
   Prompt: Tell me about your process of differentiation in your classroom practice and preparation.
   Prompt: How do you differentiate in English Language Arts/ Writing/ Science/ Math?

5) Do you utilize any progress monitoring tools in your classroom? Why/why not?
   Prompt: Tell me about the progress monitoring tools you utilize and how you use them.
   Prompt: How did you come to select the tools you presently utilize?
   Prompt: Do you share your progress monitoring with stakeholders? Which? Why?

6) Tell me about how you collaborate with your colleagues and administration.

7) Please describe your classroom behavior management.
   Prompt: How do you reinforce positive behavior?
   Prompt: How do you redirect undesired behavior?

8) The Inclusive Instruction Program that you just completed was 4 modules catered to supporting general education teacher who have students with special needs in their classrooms. When you engage in new learning such as this, in a professional setting, how do you begin the process of integrating it into your own practice?

9) Is there anything else you would like to add about your participation in or learning from the Inclusive Instruction Program (IIP)?

APPENDIX D

MODULE FEEDBACK FORM

1) What was one thing you learned today and plan to implement in your classroom/practice?

2) Would you like additional resources regarding today's topic to support you in your instructional practice?

___ Yes ____No

3) Please indicate whom you would prefer to meet with for cluster follow-up

---

What would you like to focus on?

APPENDIX E

SUPERINTENDENT'S APPROVAL LETTER

Date:
Name of Superintendent
Name of School District
Address

Dear Superintendent _____:

My name is Emerald Ochonogor and I am a Special Education Teacher in Maricopa County. I am also enrolled in the Educational Leadership and Innovation doctoral program at Arizona State University. I have completed my coursework and will be conducting research to complete the requirements for my dissertation during the 2018-2019 school year. The topic I have chosen is ***professional development and teacher self-efficacy in supporting students with special needs***. The study will focus on how prepared regular education teachers' believe they are to work with children who have been found eligible to receive special education services for a specific learning disability and emotional disability within the general education classroom. I am requesting permission to contact teachers in your district to participate in a study that will include professional development, surveys, and interviews.

I will ask participants to complete a pre and postsurvey, participate in an individual interview, take part in and journal on professional development learning that I will present and complete an evaluation for each module. The survey requires that participants choose an option that indicates their perceived preparedness to work with students with learning and emotional disabilities. The instrument will take no longer than 15 minutes to complete. With your consent, the surveys will be distributed to teachers during a regular professional development meeting or online. Any identifying information will be kept confidential. Teachers who choose to participate in the study will also engage in an individual interview, which will be audio recorded. Interview questions will center on their professional development learning in the area of behavior management, collaboration, progress monitoring and differentiation. Each of these topics will be the focus of one professional development course, therefore the interviews will occur after the courses are completed. After each module, participants will receive an evaluation form to assess the quality of the content presented as well as the activities completed. The postsurvey that participants complete will mirror the presurvey and serve as a measure to analyze the effects of the targeted professional development courses.

As the inclusion of special education students increases, the roles and responsibilities of general educators changes. The results of this study will provide information on what teachers need to be prepared and successful in teaching children

with disabilities. Once the study is complete, I will be very happy to share the findings with interested persons in your district.

If you grant me permission to conduct this research with teachers in your district please copy and paste the content of the enclosed consent form to your district letterhead, sign it, and return it in the self-addressed, stamped envelope. You may also email it to ewoodlan@asu.edu.

If you have any questions please feel free to contact me via email ewoodlan@asu.edu or 323.590.5766. My committee chair is Dr. Lauren Harris, who can be contacted at Lauren.Harris.1@asu.edu.

Thank you in advance for your time and consideration.

Sincerely,
Emerald Ochonogor
Doctoral Student, Arizona State University
Enclosure
Cc: Dr. Lauren Harris, Committee Chair

SUPERINTENDENT'S PERMISSION TO CONDUCT RESEARCH:
CONSENT FORM

As superintendent of _____ District, I give Emerald Ochonogor permission to conduct educational research in the district during the Fall semester of the 2018-2019 school year. This research will be conducted to determine teachers self-efficacy in teaching students with special needs in the regular education classroom. Permission is granted to distribute survey instruments to teachers within the specified school district. I understand that participation in this study is voluntary. All responses will be kept confidential. No individuals will be identified in any of the reports.

_____ _____

Superintendent's Signature **Date**

*adapted from Higgins (2016)

APPENDIX F

PRINCIPAL'S APPROVAL LETTER

School Letter Head

May 18, 2018

Re: Action Research Project

Dear ASU Institutional Review Board,

Mrs. Emerald Ochonogor is a special education specialist at _____ . She is also a doctoral student at Arizona State University currently working on an action research project in which she is examining ***professional development and teacher self-efficacy in supporting students with special needs***. Mrs. Ochonogor has permission to conduct this action research work during the 2018-2019 school year. This permission extends to include administering surveys that relate to the project and conducting interviews that are consistent with her action research project. In all instances, Mrs. Ochonogor has agreed to use coded identifiers for participants to protect their anonymity as well as the anonymity of the school site and district. Further, Mrs Ochonogor has permission to conduct these surveys and interviews with participants after seeking and obtaining their consent.

If you have any questions, please feel free to contact me at (XXX) XXX-XXXX or by email at _____.

Sincerely,

_____

APPENDIX G

PARTICIPANT CONSENT FORM

Dear General Education Teacher:

I, Emerald Ochonogor, am a doctoral student in the Mary Lou Fulton Teachers College (MLFTC) at Arizona State University (ASU). I have completed my coursework and will be conducting research to complete the requirements for my dissertation during the 2018-2019 school year. As part of the program requirements, I am conducting an action research study on ***professional development and teacher self-efficacy in supporting students with special needs***.

I am inviting your participation, which will include responding to a survey about your own experience and confidence in differentiation, behavior management, collaboration and progress monitoring. I anticipate this survey will take about 15-minutes total for you to complete on two occasions, once at the beginning of the professional development cycle and again at the end of the cycle. You have the right not to answer any question, and to stop your participation in the survey at any time.

Your participation in this study is voluntary. If you choose not to participate or withdraw from the study at any time, there will be no penalty whatsoever. The benefits of participation for you and others are that revisions will be made to the professional development program. Thus, there is potential to enhance your teaching practice. Survey responses will inform future iterations of study and professional development. The results of this study will provide information on what teachers need to be prepared and successful in teaching children with disabilities, therefore, there is potential to enhance the experiences of our students. You must be 18 years of age or older to participate. Your responses will be confidential. Results from this study may be used in reports, presentations or publications but your name will not be used. There are no foreseeable risks or discomforts to your participation.

Your responses will be confidential. You will use a unique identifier, one that is easy for you to remember, but one which no one else will know. The unique identifier will be the first three letters of your mother's name and the last four digits of your phone number. For example, Mar0789 would represent the first three letters of Mary and 0789 are the last four digits of your phone number. As a result, your responses will be confidential. This identifier will be used to match your initial set of responses to your later responses. You will not be identified in any way. Results of this study may be used in dissertations, reports, presentations, or publications but your name will not be known.

Additionally, I will ask six of you to participate in individual interviews, which will last about 30 minutes. The interview will be at the conclusion of the project. This study requires the audiotaping of your interview with the researcher. Neither your name nor any

other identifying information will be associated with the audiotape or the transcript. Only the research team will be able to listen to the tapes.

The tapes will be transcribed by the research team and erased once the transcriptions are checked for accuracy. Transcripts of your interview may be reproduced in whole or in part for use in presentations or written products that result from this study. Neither your name nor any other identifying information (such as your voice) will be used in presentations or in written products resulting from the study. Immediately following the interview, you will be given the opportunity to have the tape erased if you wish to withdraw your consent to taping or participation in this study.

By signing this form you are consenting to:

1) Participating in the study
2) Being interviewed if selected
3) Having your interview audiotaped
4) Having the tape transcribed
5) Use of the transcription in presentations and written products

This consent for taping is effective until December 15th, 2018. On or before that date, the tape will be destroyed.

By signing below, I agree to participate in the project.

Signature:_____ Printed Name:_____

Date _____

If you have any questions concerning the research study, please contact the research team at: Emerald Ochonogor (323) 590-5766 or Dr. Lauren Harris at Lauren.Harris.1@asu.edu. If you have any questions about your rights as a participant in this research, or if you feel you have been placed at risk, you can contact Dr. Lauren Harris or the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788.

APPENDIX H

TEI SURVEY EMAIL

Greetings,

I, Emerald Ochonogor, am a doctoral student in the Mary Lou Fulton Teachers College (MLFTC) at Arizona State University (ASU). As part of the program requirements, I am conducting an action research study to assess teacher self-efficacy and training in supporting students with special needs in the regular education classroom.

I am inviting your participation because you have been identified as a general education teacher who teaches students with special needs. Your participation will include responding to a survey about your own experience and confidence in differentiation, behavior management, collaboration and progress monitoring. I anticipate this survey will take about 15-minutes total for you to complete on two occasions, once at the beginning of the professional development cycle and again at the end of the cycle. You have the right not to answer any question, and to stop your participation in the survey at any time. This research has been approved by the Institutional Review Board at Arizona State University.

The survey can be accessed using the link below:
https://asu.co1.qualtrics.com/jfe/form/SV_bqlIyBo1fm9NP1j

Please contact me at 323.590.5766 or email me at ewoodlan@asu.edu, should you have any questions.

Warm Regards,
Emerald Ochonogor