PRINCIPALS UTILIZING LEADERSHIP FOR SPECIAL EDUCATION:

The *PULSE* Workshop Model for Improving the Practice of
Instructional Leadership for Special Education

By

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ABSTRACT

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Elementary principals are expected to be instructional leaders for all students. However when it comes to leadership for students with disabilities, this role can be problematic. This is largely due to a lack of their own efficacy about their special education leadership role, unfamiliarity about the unique cultural features of special education, and a lack of technical competence for special education. These factors contribute to a diminished principal leadership role. Special education leadership has become a significant concern for elementary principals as their roles have increased to ensuring successful outcomes for all students. The research has demonstrated that in general, principals receive little to no formal training in leading special education in pre-service or on-going professional development.

For this study, I developed a theory of action to guide the design and implementation to address the problem of practice for principals leading special education. Drawing from the literature on instructional leadership and special education leadership, I identified three key design dimensions to address principal learning in the area of special education instructional leadership: principal efficacy, the unique cultural aspects about special education, and technical competence for special education. I created a 10-week professional development intervention, referred to as *PULSE* - Principals Utilizing Leadership in Special Education: The *PULSE* Workshop Model for Improving the Practice of Instructional Leadership for Special Education.

During the course of the study, I investigated the impact of the design on the principals' learning and practice based on pre and post intervention data. In addition, I examined the design process including the appraisal of lesson content, instructional method, session length, and overall usefulness of curriculum material. Overall, the impact and process data findings suggest that the *PULSE* workshop series intervention contributed to enhancing principal instructional leadership behaviors for special education and the impact of that change can be attributed to the design of the intervention. Results reveal that the structure, content, and method of the *PULSE* intervention workshop helped shift principal behavior in a positive leadership direction. These findings also inform potential future design modifications that may be utilized to improve upon the foundational elements of the *PULSE* workshop intervention.

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DEDICATION

For Ted, my partner in love and life whose unconditional heart provided me with the strength, mind, and tenacity to complete this very challenging journey.
And to you I say, 'yes' I am done with my paper.

For my parents, the best teachers in life who made me the person I am today.

For Diana, your enduring friendship and relentless spirit are as valuable to me as this degree.

And for Bella, thank you for taking care of Ted. You came into our lives at the perfect time.
You are a good dog.

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CHAPTER ONE:
PROBLEM OF PRACTICE AND THE PROFESSIONAL KNOWLEDGE BASE

Introduction

There is a widely held belief that effective principals are the savored ingredient for successful schools; absent effective principals, school improvement efforts would not succeed (e.g. Leithwood, Seashore-Louis, Anderson, & Walstrom, 2004). Over the past decade, the elementary school principal has come under substantial scrutiny and faced increased demands to effectively lead schools that meet the needs of a diverse student population—including students with disabilities (Goor, Schwenn, & Boyer, 1997).

Both the Individuals with Disabilities Education Act, known as IDEA (2004) as well as the Elementary and Secondary Education Act (ESEA), reauthorized in 2001 as the No Child left Behind Act (NCLB, 2001), place great emphasis on improving student achievement (National Association of State Directors of Special Education [NSDSE], 2010). Specifically, IDEA (2004) stresses importance on academic goals and accountability for students with disabilities by requiring a student's individualized education plan or IEP to include provisions for the student to "be involved and progress in the general curriculum" (IDEA, 2004). In addition, NCLB (2002) focuses on high standards and accountability for student learning and mandates that students demonstrate "adequate yearly progress" (AYP) on state assessments by 2014 (United States Department of Education [USDOE], 2002).

The work of a school principal is ever changing and always demanding; in addition to the daily tasks of school site manager and supervisor, continually refined federal requirements such as IDEA and NCLB just add to the already overflowing plate of the school principal. Sage and Burello (1994) found that in addition to the myriad of traditional responsibilities, school principals are now expected to create, lead, implement, and supervise programs for students with disabilities.

Where does this leave the principal in overseeing often complex and cumbersome special education services and programs in their schools? For students with disabilities, the principal's role as the instructional leader is critical and will often determine the efficacy and quality of special education services (Burello, Schrup, & Barnett, 1992; Sirotnik & Kimball, 1994; Valesky & Hirth, 1992.).

Statement of the Problem and Design Challenge

In elementary schools today, principals are expected to be instructional leaders for all students, however when it comes to overseeing special education, this role tends to become problematic and neglected. Special education leadership has become a significant concern for elementary principals as their roles have increased to ensuring successful outcomes for all students.

What we know from the research is that principals receive little to no formal training in leading special education, in both pre-service and on-going professional development arenas (DiPaola & Tschannen-Moran, 2003; Katsiyannis, Conderman, & Franks, 1996; Parker & Day, 1997; Wakeman, Browder, Flowers, & Ahlgrim-Delzell, 2006). For elementary principals, a low level of efficacy about their special education leadership role, unfamiliarity about the uniqueness of special education's cultural place within a school, and a lack of technical competency about

supporting students with disabilities, all contribute to a diminished role on the principals' part when providing instructional leadership for special education.

The dilemmas and challenges of special education confronted by elementary principals could be categorized as a "shared experience" given the fact that most administrators see special education as an area of need and would appreciate professional development, coursework, or training. In fact upwards of 95% of participants in a multi-state study of 120 administrators stated that such training would be beneficial in terms of performing their jobs (Montieth, 1994).

The challenge and the need to address principal leadership behavior centers around a range of both affective conditions and technical skills related to serving students with disabilities; matters related to principal efficacy, attitude, disposition, and beliefs, along with understanding the unique place special education holds within a school, and acquiring the technical knowledge base in special education that includes information pertaining to specialized academic instruction, disability areas, and legal and compliance matters. When principals are informed, comfortable, and competent in their role as instructional leaders for special education, they may engage and participate more frequently in special education-related matters with teachers (i.e. more frequent classroom visits, meaningful dialogue regarding learning and instruction, more engagement with special education issues). In addition, their increased attention to and participation with special education may increase confidence in their role as an instructional leader for all students within their school.

It is within this context that my design challenge was formulated. Specifically I created a professional development workshop series for elementary principals designed to improve their instructional leadership practice as informed, engaged, and contributing leaders for special education. The process for addressing the design challenge occurred through a sequence of carefully planned intervention workshops or modules, referred to as *PULSE*: Principals Utilizing Leadership for Special Education. The theoretical model was designed with the intent to provide elementary principals with the disposition, knowledge, and skills, necessary to more effectively lead special education within their schools.

Consulting the Professional Knowledge Base

In my efforts to address the knowledge base specific to principal instructional leadership and special education, I consulted topics that addressed the effective schools movement, principal leadership, various instructional leadership models, as well as topics concerning leadership specific to special education. Although the subject matter of principal instructional leadership for special education was thoroughly researched, it still remains an area with limited attention in the educational research field.

In this next section, I provide a summary review of the literature base pertaining to the significance of instructional leadership by principals for special education and review components of various instructional leadership models. Then, I give an overview of what principals need to know and be able to do in regards to providing effective instructional leadership for special education and narrow the scope to a cluster of three leadership dimensions that are critical for principal success: 1.) Principal efficacy, attitude, and disposition, 2.) Cultural proficiency in regards to understanding the uniqueness about special education, and 3.) Technical competence for special education. Finally, I highlight the literature related to learning models and professional trainings intended to address principal special education leadership practices.

Principal Leadership and Special Education

Over the past 20 years, multiple sources have revealed a strong relationship between principal effectiveness and student achievement (Hallinger, Bickman, & Davis, 1996, Leithwood et al., 2004; Marzano, Waters, & McNulty, 2005). The role of leadership is essential to establishing a climate of achievement in schools. As stated clearly stated by Leithwood et al. (2004), "Leadership is second only to classroom instruction among all school related factors that contribute toward what students learn at school" (p.5). Several studies have examined the relationship between the principal and student achievement and findings indicate that principals do have a direct and indirect effect on student achievement by establishing goals and vision, addressing school culture and climate, and by acting with agency as a school leader (Cole-Henderson, 2000; Hallinger, 2003; Hallinger, et al., 1996; Hallinger & Heck, 1998; Witziers, Bosker, & Krüger, (2003). Administrative leadership is a significant predictor of positive school culture and climate as teachers and staff implement educational practices that benefit students with disabilities (DiPaola, Tschannen-Moran, & Walther-Thomas, 2004).

Even school boards, at state and local levels are stating in policy that "the principal shall assume administrative responsibilities and instructional leadership…and that the primary responsibility is on the improvement of instruction" (Frost & Kersten, 2011; p. 4). Numerous district school boards require that their principals be evaluated on instructional leadership ability and that efforts to create and maintain a positive learning climate are regularly monitored (Frost & Kersten, 2011; Bays & Crockett, 2007). Shellard (2003) indicates that research over the two decades suggests that effective principals must be instructional leaders in addition to fulfilling all other obligations and managerial roles within their school.

The Individuals with Disabilities Education Act (IDEA, 2004) requires that students receiving special education services be educated in the least restrictive setting with access to the core education curriculum and participate in state assessments. Typically, the least restrictive setting is described as the child's neighborhood school, where services are supervised under the leadership of the school principal (Lasky & Karge, 2006; DiPaola & Walther-Thomas, 2003). The Office of Special Education Programs (OSEP) emphasizes that the central role of the school principal is providing instructional leadership and ensuring that students with disabilities receive an appropriate education (Heumann & Hehir, 1998). The principal as the instructional leader for all students is also articulated under standard two of the Interstate School Leaders Licensure Consortium (ISLLC) Standard 2: *A school administrator is an educational leader who promotes the success of all students by advocating, nurturing, and sustaining a school culture and instructional program conducive to student learning and staff professional growth.* The six ISLLC standards were developed to guide educational leaders as they seek to lead and improve student learning and are currently implemented in 46 of 50 states (Sanders & Kearney, 2008).

Leading a school is a complex and dynamic feat and one well established component includes the role of instructional leadership. The literature is very straightforward that leadership, specifically principal leadership, is central to implementing and sustaining successful inclusive practices for students with disabilities (Capper, Frattura, & Keyes, 2000; Riehl, 2000; Stainback, Stainback, & Bunch, 1989). In this role, the principal is influential as an instructional leader through their interactions with teachers and shaping aspects of the school culture and organization (Hallinger & Leithwood, 1994; Heck, 1993). Additionally, principals are held accountable for the adequate yearly progress for all students, including students with disabilities (Wakeman et al., 2006).

As instructional leaders, principals are responsible for developing a school culture that is balanced with high expectations for all students yet inclusive and accepting of students with disabilities. Effective principals foster positive relationships based on trust, collaboration, and teamwork (Tschannen-Moran, 2004). Effective instruction for students with disabilities has been a significant dimension of school improvement and principal instructional leadership is considered essential for fulfilling this role (Bays & Crockett, 2007). Principals who are invested in creating effective programs for students with disabilities ensure that teaching practices are high quality and grounded in educational research (Billingsley, Carlson, & Klein, 2004; Crockett, 2002). The importance and necessity of principal instructional leadership for special education cannot be overemphasized: "When school leaders focus on fundamental instructional issues, demonstrate strong support for special education and provide ongoing professional development, academic outcomes for students with disabilities and others at risk improve" (DiPaola et al., 2004, p. 3).

Over the past thirty years various instructional leadership models have been presented and analyzed (see Andrews & Sodder 1987; Bossert, Dwyer, Rowan, & Lee,1982; Duke, 1987; Hallinger, 2003; Hallinger & Murphy, 1985) although none purport to include special education as a specific lens for consideration. The absence of a special education specific model can be acceptable when other well-researched models of instructional leadership can be appropriately applied to principal leadership for special education. Numerous models of instructional leadership include elements that pertain to all students—including students with disabilities and the staff who support them.

Instructional leadership has been referred to as "the glue that binds together school-wide goals, teacher needs, and student learning" (Bays & Crockett, 2007, p. 144). It has been defined as a set of behaviors whereby instructional leaders pursue an instructional vision and activate community support, set high expectations for student and teacher performance, create a culture of trust, collaboration, and positive school climate, and monitor instruction and innovation (Sheppard, 1996; Spillane, Halverson, & Diamond, 2001; Dufour, 2002; National Association of Elementary School Principals [NAESP], 2001; Hallinger, 2003; Hallinger & Murphy, 1985). Blasé and Blasé (2000) describe instructional leadership by principals with more refinement and include a number of meaningful activities: 1.) Making suggestions to teachers regarding effective instruction, 2.) Giving feedback and praising teachers, 3.) Supporting teacher collaboration efforts and, 4.) Providing professional development opportunities. All these activities require a vast array of knowledge and expertise by the school principal in their leadership role. Other researchers have clustered instructional leadership priorities into five overarching behaviors: 1.) Defining and communicating the school's mission, 2.) Managing curriculum and instruction, 3.) Supporting and supervising teaching, 4.) Monitoring student progress and, 5.) Promoting a climate of learning (Bateman & Bateman, 2006; Blasé, 1987; Blasé, Blasé, Anderson, & Dungan, 1995; Blasé & Kirby, 2000).

When it comes to empirical research on various instructional leadership models, no framework has been more thoroughly studied than Hallinger and Murphy's (1985) three-pronged approach to school leadership (Leithwood et al., 2004). The defining features of Hallinger's model consist of three dimensions of the instructional leadership role for the principal: 1.) Defining the school's mission, 2.) Managing the instructional program and, 3.) Promoting a positive school learning climate (Hallinger, 2003; Hallinger & Murphy, 1985). Hallinger's model situates the essential functions for principals in a practical framework that mirrors its application from general education to special education. As an example, who could argue the significance of

including students with disabilities as part of an inclusive school mission, or that focusing on positive achievement outcomes for children in special education should not be a school-wide goal shared by all teachers in the school.

Principals and Instructional Leadership for Special Education

As stated, the literature describing components and models of instructional leadership do not refer specifically to special education within their framework, however its connection is clear (Crockett, 2002; Lashley & Boscardin, 2003). The broad reach of any instructional leader's focus should not be minimized: As poignantly summarized by the Council for Exceptional Children (2003):

> It takes a strong instructional leader to ensure that all children achieve. It takes a strong instructional leader to ensure that all children and their teachers receive the supports and services they need to learn and develop. And, it takes a strong instructional leader to create a positive learning climate that embodies a unifying philosophy of respect for all children and stakeholders in the total school community. (p. 9)

Next, I examine what principals need to know and do in regards to providing effective instructional leadership for special education. Elementary principals do not need to be disability experts, however they must have a strong working knowledge base about special education and skills that will enable them to be successful in their instructional leadership practice. Unfortunately, the research reveals that principals lack the necessary course work and experience to create and lead effective learning environments for students with disabilities (DiPaola & Tschannen-Moran, 2003; Katsiyannis et al., 1996; Parker & Day, 1997).

In an effort to understand the experience of principals as special education leaders in their schools, Lasky and Karge (2006) surveyed 205 principals across a variety of school districts in Southern California. The researchers identified three primary competency themes that principals should possess in order to effectively oversee special education programs: 1.) Principals must be able to display knowledge and skills about effective instruction, 2.) Principals must develop skills for leading instructional teams and facilitating collaborate relationships (i.e. teachers, staff) and, 3.) Principals must be able to establish a vision and goals for the school community. Lasky and Karge (2006) found that principal respondents reported limited ability and knowledge regarding leading special education and supporting students with disabilities.

In another study, Wakeman et al. (2006) examined principal knowledge of special education leadership issues. The research team used a survey developed from five common factors that were synthesized from the research perspectives of Cochrane and Westling (1977), Council for Exceptional Children (2001), and Montieth (1998). These five knowledge factors can be summarized as: 1.) Principal use of reflection and collaboration, 2.) The expectation that all teachers have ownership for the learning of all students, 3.) Knowledge of special education disabilities, 4.) Information regarding legal/compliance matters and, 5.) Implications related to diversity and the construct of "different learners" within the school setting. Results from this study indicate that principals who rated themselves higher in these knowledge factor categories also reported significantly higher participation and involvement with special education programs, staff, and services. As Wakeman et al. (2006, p.167) report, "In other words, principals who reported knowing more also reported doing more in special education." The use of reflection as a strategy to address various special education dilemmas was also connected to principals who

possessed greater knowledge of special education across the five areas. Another notable finding concerned principals who reported more knowledge of each of the five knowledge factors also reported higher frequency of meeting regularly with special education teachers and were more readily able to provide resources to teachers to address instructional practices.

McLaughlin & Nolet (2004) summarized "five things every principal must know about special education" as the anchoring tenets of their practical guidebook for principal leaders for special education. The five principles include: 1.) Understanding of legal foundations and procedures, 2.) Knowledge about instructional matters specific to special education, 3.) Ability to recognize the "individual" nature of special education services, 4.) Ensure participation of students with disabilities in assessment and accountability systems, and 5.) Create and sustain a positive school culture and climate that supports special education. The guidebook is intended to address basic foundational knowledge for principals in order to lead effective special education programs within their schools and based their recommendations on practices found in the literature as well as legal requirements.

For principals overseeing special education, knowledge about special education law is a critical skill set. Davidson and Algozzine (2002) investigated the knowledge level pertaining to special education law with 264 beginning principals. Results indicate that most novice administrators did not believe they had sufficient knowledge of special education laws or legal requirements. In addition, the majority of beginning principals reported significant dissatisfaction with their administrative preparation program and indicated a high need for additional administrator training in special education. Results suggests that novice administrators, due to limited information and knowledge, may have difficulty in providing leadership for site-based special education services without proper guidance or on-going support. In this study, the authors emphasized that "knowledge is power" where adequate knowledge enables administrators to provide either solid leadership (power) or inaccurate, confusing, or debilitating leadership. Limited knowledge about special education laws and how to properly follow and monitor the law at the school level can potentially result in costly legal disputes (Davidson & Gooden, 2001).

As a means to address the lack of appropriate special education training for principals, Goor et al. (1997) described a model containing four fundamental components as part of a principal preparation and training program. The Goor et al. (1997) components were intended to enable principals to be more effective in their roles as leaders of special education and include: 1.) Essential beliefs, 2.) Knowledge, 3.) Skills, and 4.) Reflective behaviors. In their model, principals are instructed in both content knowledge as well as communicative and affective aspects of leadership behavior. Goor et al. (1997) noted that typical models of principal preparation training programs focus on the acquisition of knowledge and skills first without addressing beliefs or introducing and preparing principals to be reflective practitioners as their model supports.

In an effort to better understand how principals spend their time overseeing special education programs in their schools, Bays and Crockett (2007) studied principals in nine elementary schools across three school districts. Conclusions indicated that principals in each school utilized three processes for providing instructional leadership for special education: 1.) Observation and evaluation of teachers, 2.) Supervision by wandering, and 3.) Open dialogue and informal communication with teachers. It is interesting to note that the researchers cite the formal evaluation process required by the district as the most frequent method of "supervising" general education as well as special education teachers. The Bays and Crockett (2007) study is

significant as it captures "how" instructional leadership might occur in schools and provides insight to principals about a method for providing such leadership.

Three Areas for Principal Learning and Development

Now that an overview has been presented of the knowledge base major research themes associated with the elementary principal role as they oversee and provide instructional leadership for students with disabilities, it is necessary to review in detail three important principal leadership behaviors. In order for principals to be successful in their role as instructional leaders for special education, they must understand issues related to *principal efficacy, attitude, and disposition* and how these constructs might influence leadership ability, including confidence and beliefs. Additionally, principals will need to examine and appreciate the *cultural uniqueness* of special education in regards to supporting students with disabilities and those who teach them—special education in-and-of-itself differs culturally from the mainstream educational environment and may require a shift in perspective and actions from the school leader. Finally, principals will need to acquire *technical knowledge* about special education, including information about instruction and curriculum, laws and regulations, and disability-related matters.

Principal Efficacy, Attitude, and Disposition

The old adage "attitude is everything" certainly can be regarded as a key factor in the leadership behavior exhibited by principals towards special education. Numerous researchers cite the principal's ability to create and oversee effective special education services as dependent upon their attitude (Gameros, 1995; Guzman, 1997; Van Horn, Burrello, & DeClue, 1992). Bargerhuff (2001) examined how principal leadership qualities influence the practice of including students with disabilities in mainstream classrooms, to the maximum extent possible, as a standard expectation and practice. Specifically, the study investigated the beliefs, knowledge, and behaviors of principals who promote and sustain successful inclusive learning environments. In this qualitative case study of three elementary school principals, findings indicate that each principal was able to initiate and sustain a school-wide commitment to inclusion of students with disabilities in general education classrooms through the establishment of a vision based on the attributes of relational trust, respect, and cooperation. In their schools, principals were able to establish a belief and practice that " being different and learning different things at different rates and different times was the expected and accepted way of learning" (p. 19). Such leadership attitudes can permeate the entire school community. Virtually every staff member will take their cue on how to behave towards children with disabilities from the explicit and implicit behavior of the principal (National Joint Committee on Learning Disabilities [NJCLD], 1982; Kusuma-Powell & Powell, 2000).

Dyal, Flynt, and Bennett-Walker (1996) also looked at including students with disabilities in regular classroom and found that most principals surveyed preferred the status quo—that is, services for students with disabilities *should* continue to be provided in a separate classroom or a different location from general education students. For Dyal et al. (1996) it is evident that "the school principal plays a critical role in shaping an educational climate that provides opportunities for interactions between non-disabled and disabled students"(p.32). Gameros (1995) examined principal attitudes and roles and found the principal's leadership and vision to be a vital part of an accepting and caring school environment.

DeClue (1990) through a case study of three elementary principals, found that the attitude of the principals toward special education was a key factor influencing their behavior and acceptance of special education programs in their schools. Their leadership behavior in addition to their day-to-day involvement with special education students and programs delivered a clear message that students with disabilities are valued and important to their schools. Van Horn et al. (1992) indicated that behaviors exhibited by principals toward students with disabilities are dependent upon and guided by principal attitudes and dispositions towards special education.

In a another study, focusing on principals and their preparedness and ability to manage various special education dilemmas, Patterson, Marshall, and Bowling (2000), found special education program development often hinged on the role, support, attitude, and interest of the principal—which varied considerable from school to school. In fact, feedback from respondent principals acknowledged that they *could* play a key role in special education if they *chose* to do so. Furthermore, the research revealed, due to limited training and knowledge regarding the intricacies of special education services and regulations, most principals preferred to be less involved and their behavior was aloof or distant in terms of their special education role. The implications for principals preferring to take the sidelines in their special education role can have significant ramifications in terms of services for students or supervision of special education staff. Sage and Burrello (1994) state the principal's *attitude* is critical for creating a climate of acceptance for students with disabilities—moreover, the principal's *actions* ultimately become the key factor into their beliefs about special education as well as their confidence level for carrying out this role.

In a study of over 100 elementary principals, McAneny (1992) found that principals with more positive attitudes about mainstreaming and inclusion were more likely to take action to ensure that students had access to the general education program and experiences with typical, non-disabled peers. In a related study with 400 elementary school principals, Praisner (2003) found that only 20% of principals surveyed reported a positive response about including students with disabilities in the mainstream—moreover, most principals reported that they were uncertain about how they felt regarding this survey item. On the more encouraging side, the researchers also provided insight pertaining to attitude and positive experience with students with disabilities—results indicated that if principals had more beneficial or positive experiences with students with disabilities as well as exposure to special education, they were more likely to advocate to place students in less restrictive settings (i.e. mainstream settings). If including students with disabilities in general education classrooms is an educational goal for a school community, success will depend heavily on the willingness and readiness of principals to make decisions that will provide the opportunities for integration with typical students (Ayres & Meyer, 1992).

Ensuring a positive attitude by school principals about students with disabilities and how they participate in regular education classrooms is a significant factor for principals leading special education. There are important traits related to principal behavior that contribute to the formulation of a positive attitude—traits such as the principal's sense of efficacy, level of confidence, and their disposition toward their leadership role for special education. I will briefly touch upon these factors as potential "influencers" in forming a principal's attitude about special education.

Sense of efficacy is the belief about one's own ability—the key term is *belief* since it is not about the actual ability of an individual but rather their belief (Leithwood & Janzti, 2008; Bandura, 1997). The literature examining principal efficacy impact is limited, however two

studies do exist within the school context. In one study of 558 principals in Virginia with almost one third from within the elementary level, results suggest that the perceived quality and purpose of principal training significantly contributed to principals' sense of efficacy (Tschannen-Moran & Gareis, 2004). Another significant finding from this study was related to the level of interpersonal support experienced by the principals: Principals who identified support from others, e.g. teachers, central office, indicated higher levels of efficacy about their leadership. In fact principals' sense of efficacy was correlated positively with all interpersonal support variables. The findings could have implications for both the technical aspect of special education knowledge for principals but also the interpersonal nature of such activities suggesting that continuous and ongoing high quality trainings for principals on various matters related to leadership is important to the profession and may bolster principal efficacy. In another study involving surveys from 180 schools across nine states concerning principal efficacy, results indicated significant but modest effects of individual principal efficacy on school leadership behaviors—such as creating a vision, developing people, building a school culture, and managing the instructional program (Leithwood & Janzti, 2008). Principal efficacy is closely associated with principal confidence and as such, is likely the key cognitive variable controlling leader functioning (McCormick, 2001). In a further reference about confidence, McCormick (2001) states, "Every major review of leadership literature lists self-confidence as an essential characteristic for effective leadership" (p. 23).

Another area in the affective realm addressing principal behavior addresses principal dispositional state. Usher (2002) defines disposition as qualities that characterize a person as an individual that relate to controlling perceptions, such as mental, emotional, or spiritual qualities and these qualities determine a person's natural or usual way of thinking and acting. Deal and Peterson (1993) state that principal disposition has a definite effect on the culture of the school and actions of the principal are noticed and interpreted by others as what matters and is valued within the school. Principals are expected to be the role models within the school community, setting the tone for how staff and students interact with one another. Costa and Kallick (2009) indicated that these dispositional qualities could be changed or modified and developed over time but with intention. Martin (2009) conducted a qualitative study of 76 principal candidates to better understand dispositions and how they can be addressed in school leadership preparation programs. For the purpose of the study, Martin (2009) identified dispositions as attitudes, values, beliefs, and characteristics demonstrated over time through professional interactions, decisions, and observable behaviors with the school community. Participant dispositions were measured three times over the course of the preparation program, and training program faculty provided coaching to enhance and shape pre-service principal dispositions through periodic confidential conferences. Results indicated that additional teaching of dispositions in the first courses of the program was necessary and providing meaningful feedback to students during the conference time on the consistency of their dispositions was also viewed as critically important. Additional results indicated that dispositions related to the areas of time management, communication, reflective practice and open-mindedness should be a focus during the principal internship period and monitored by faculty coaches. Ritchhart (2002) emphasized, "dispositions concern not only what we can do (our abilities), but what we are actually likely to do by addressing the gap we often notice between our abilities and our actions" (p. 18). Diez (2006) contends that improvement in these areas must be intentional, requiring that candidates thoughtfully explore their reasoning, motivation, words, as well as actions behind their behavior.

The Cultural Uniqueness of Special Education

When culture is discussed in relation to schools, it generally takes on two meanings; one as a defining dimensions of identity of race, religion, spoken language, or ethnic background whereby teachers are challenged to make instruction "culturally responsive" for all students (Villegas & Lucas, 2002). The other aspect of culture attends to the uniqueness of each individual school or the set of rituals, rules, values, and moral code that shapes behavior and relationships within the school building (Deal & Peterson, 2009). In this section, I argue for the consideration that special education in and of itself is a distinct culture within the general education school setting. The traditional separation between special education and general education in addition to the differences in preparation and training between these two groups help define the development of a separate culture (Pugach, 1992). In addition, Deal and Peterson (2009) describe culture as "the unwritten rules and assumptions, the combination of rituals and traditions, the array of symbol and artifacts, the special language and phrasing that staff and students use, and the expectations about change and learning that saturate the school's world" (p. 9). Special education maintains its own laws, procedures, vocabulary, documents, as well as researched-based instructional methods, techniques, and strategies. As a distinct culture, school principals may lack the perspective and information necessary to address issues related to the unique culture or special-ness factor about special education. Aspects associated with teacher evaluation, teacher support and isolation, recruitment, retention, classroom instructional practices, compliance and legal matters may demand a different approach or perspective when looking through the lens of special education.

Instructional leaders who understand students with disabilities, effective teaching practices, as well as Federal and State laws that pertain to special education, such as IDEA (2004) or NCLB (2001)—related aspects, are better prepared to provide students and teachers under their supervision with the support and guidance necessary to succeed (DiPaola et al., 2004). More informed and enhanced instructional leadership can promote increased learning outcomes if principals act on the assumption that there is something different that takes place in special education classrooms compared to general education classrooms whereby the practice of special education instruction must be interpreted to mean, "specialized instruction." Williams (2000) states, "special education students need a distinctive approach to instruction, involving a slower pace, a more elaborated sequence of step, extensive practice, and clear feedback" (p. viii).

Instructional leadership for special education can be compromised when principals lack the understanding or clear regard for the uniqueness of special education—differences such as specialized instruction or even the special education teacher evaluation process. In a study focused on the instructional supervisory practices of elementary principals, one third of the principals perceived special education instruction as being *no different* from any other instruction occurring in their school (Bays, 2004). Upon visiting and observing in classrooms where special educators where teaching, principals ignored specialized methodologies, techniques, or accommodations intended to increase student learning for students with IEPs. When principals lack the knowledge or skill necessary to oversee special education services as well as the understanding about the uniqueness of special education within their school setting, their supervisory practices become perfunctory. The supervision and evaluation methods become non-specific, reflecting the belief that "instruction is instruction" thus ignoring an underlying goal of special education which is to match instructional interventions to individual learning needs (Bays, 2004). Bays (2004) concludes that even during post observation conferences with special education teachers, evaluation forms were *generic* in structure since they were designed for

general education teacher feedback use— however principals still used the generic form to provide feedback to special education teachers.

Of all competing agenda issues that may exist for a school principal, there is little doubt that hiring and retaining excellent teachers should be a priority for every administrator. As Sanders and Rivers (1996) found, the cumulative effect of students having a highly qualified teacher over the course of their early grades contributes more to student achievement than any other factor, i.e. class size, student background, etc. Unfortunately, the literature pertaining to special education teacher consistency and retention is quite dismal—within five years of starting to teach special education, over 50% of new teachers leave their special education classroom (National Education Association [NEA], 2008). Special education teachers are ten times more likely to transfer into general education over their course of their career than are general education teachers transferring into special education (McLeskey, Tyler, & Flippin, 2004). The specific reasons for this high level of attrition are varied—some teachers leave for personal reasons or perhaps due to the extensive bureaucratic nature of special education or the constant necessity to monitor legal compliance factors become tedious and overwhelming. Other reasons are less obvious and possibly reflect on the school's cultural and climate issues, such as teacher support and teacher isolation—often teachers of students with disabilities may be the lone specialist at their school or perhaps receive little attention by the principal.

A factor that is consistently cited in a number of studies identifies the lack of administrative support as a primary attrition problem and reason special education teachers leave their classrooms (Billingsley, 2005; Crockett, 2004; Gersten, Keating, Yovanoff, & Harniss, 2001; Kozleski, Mainzer & Deshler, 2000; Lashley & Boscardin, 2003; Wasburn-Moses, 2005). Several studies have described various contributing aspects of building level support that play a positive role in minimizing the departure of special education teachers from the classroom— factor such as the degree to which special educators perceive the principal or administration as supportive of them and their role (Billingsley, Gersten, Gillman, & Morvant, 1995; Boyer & Gillespie, 2000; Cross and Billingsley, 1994; Gersten et al., 2001; Miller, Brownell, & Smith, 1999). Principal support can be described as understanding what teachers do in their specific job or offering professional development opportunities to a new teacher or positively impacting teachers' working conditions by providing material resources for students. These seemingly obvious factors of support play an important role in teachers' decision to stay, move on to another school or leave the field of education entirely. Billingsley et al. (1995) surveyed and interviewed 375 special education teachers in six large urban district to examine principal support for special education and found teachers reported principals' lack the understanding of what teachers do in their classrooms, failed to recognize both teacher concerns and accomplishments, and ironically as it seems, were reluctant to involve special educators in decisions regarding the development of the school's special education programs. In addition, teachers frequently reported that principals offered limited assistance in helping to mainstream students into general education classrooms and the lack of attention by principals contributed to teachers feeling that they were really not fully included in the school (Billingsley et al., 1995).

Principals who actively uphold policies that provide for equitable resources for all teachers may have greater success retaining teachers for especially hard-to-fill positions particularly like special education. A holistic look at creating and maintaining positive work environments for teachers should not only decrease attrition, but should also increase the special educators' engagement in their work, commitment to special education, as well as stay in the field of teaching (Billingsley, 2005).

Next, I will look examine the literature on the technical aspects of knowledge and information about special education. Technical competency about special education has been identified as an essential area of need for principals as they fulfill the instructional leadership role in the school. (DiPaola & Walther-Thomas, 2003; Goor et al., 1997; Lasky & Karge, 2006; Monteith, 2000; Sage & Burello, 1994; Valesky & Hirth, 1992). Given the evidence that training specific to special education information and knowledge for both pre-service and practicing principals is lacking, it is important to define the type of appropriate and meaningful information that would benefit principals and enable them to be effective instructional leaders for special education (Wakeman et al., 2006).

The literature covering principal knowledge and information, or the technical aspects of special education, can be clustered into three specific areas—laws/regulations, disability knowledge/instructional services, and teacher support/parent involvement. Pertaining to laws and regulations, principals should be familiar with core aspects of IDEA 2004, specifically that IDEA ensures that students with disabilities who require special education must be provided a "free and appropriate public education" or FAPE. The unique needs of students are addressed through an individual education plan or IEP designed to address their unique needs and provided in the "least restrictive setting" or LRE. To ensure that the rights of every student with a disability (and their parents) are protected, they are provided unique procedural safeguards compliant with State and Federal special education laws (McLaughlin & Nolet, 2004). In addition, there are numerous other compliance and regulatory procedures that principals should note and monitor, i.e. timelines for referrals, initial assessments and annual IEP reviews, discipline related matters, access and participation in district and state assessments, accommodations and modifications on assessments, participation with non-disabled peers, and confidentiality of student matters (Bateman & Bateman, 2006; Goor et al., 1997; McLaughlin & Nolet, 2004; Weaver, Landers, Stephens, & Joseph, 2003).

In the area of disability knowledge and instructional services, it is essential that principals understand, at a general level, the impact that disabilities have on learning conditions for both the student with the disability as well as those who support the student. Principals should be cognizant about factors such as ratio of students to teachers in classrooms, physical location of services and classrooms, or access to school facilities and the impact on such factors for students with disabilities (Goor et al., 1997; Bays, 2004). In order to facilitate and oversee special education programming and services, principals must become familiar with instructional models and curricular approaches that have a proven track record and have been validated by sound research (McLaughlin & Nolet, 2004). In addition, computer or electronic technology is an important resource for students receiving special education and principals need to be aware of the general use for assistive technology aides and devices and their application for student use (Goor et al., 1997; Weaver et al., 2003).

Principals are the key resource for addressing teacher support and parent involvement for students with special education needs. We know that general education and special education teacher collaboration has proven effective for enhancing the achievement outcomes for students with disabilities (McLaughlin & Nolet, 2004). As uncertain as principals may feel about supporting students in the general education classrooms, 96% of all students with disabilities are educated in regular school buildings and almost half spend about 75% of their school day in general education classrooms— the remaining 25% of the day is spent in a special education classroom (U.S.D.O.E., 2002). Principals can set the expectation for collective responsibility for

the achievement of all students (Lee & Loeb, 2000) as well as provide opportunities for joint professional development to address both special education and general education curricular areas (McLaughlin & Nolet, 2004).

Principals must appreciate and recognize the uniqueness of special education as an educational service and therefore be prepared to provide effective teacher support. This may take the form of teacher mentoring by more senior teachers or regular classroom visits and meetings with the principal so they can better understand the needs and challenges of the special educator (Goor et al., 1997; Billingsley, 1993; Bays, 2004). For parents, the principal must aware of the importance of parental participation in the special education process of their child. Parents are must provide input into the decision-making regarding their child's education and have special due process rights and protections that are different from general education parents (McLaughlin & Nolet, 2004). The importance of technical skills for special education cannot be overemphasized for principals overseeing programs for students with disabilities. In the next section, I review the domain of professional development and learning for principals and discuss implications about this area of need.

Professional Development for Principals

From a pre-service and in-service perspective, research demonstrates that most principals receive little to no formal training in special education (Wakeman et al., 2006; DiPaola & Tschannen-Moran, 2003; Katsiyannis et al., 1996; Parker & Day, 1997). Hence, it is not surprising, according to the literature, that few school leaders are truly prepared to provide effective leadership for special education (Monteith, 2000; DiPaola et al., 2004). Moreover, many school principals report that not only did they receive minimal training in special education leadership, numerous feel inadequate in their role as supervisor of special education (Valesky & Hirth, 1992; Monteith, 1998). The majority of states do not require coursework in special education to earn necessary principal certification (Kaye, 2002; Valesky & Hirth, 1992). To underscore the issue, in a review of national administrator certification programs, Valesky and Hirth (1992) found only five states had a specific course focused on special education as part of their certification program for new administrators.

In the Lasky and Karge (2006) study referenced earlier, researchers examined the formal training, knowledge and experiences of principals. Regardless of the length of time that the principal worked in administration, most principals indicated that they had limited ability and knowledge related to children with disabilities. Most respondents reported that they learned the essentials about special education through "trial and error" and "on the job" since their training lacked real substance related to special education and most districts had inadequate professional development in this area for practicing principals.

In a study by Sirotnik and Kimball (1994) examining the topic of special education in school administrator preparation programs, it could be suggested that the researchers simply replace the date of their journal article from 1994 with 2014 and retain the same title—*The Unspecial Place of Special Education in Programs that Prepare Administrators*. There appears to be little change in how special education is treated in programs that prepare principals and administrators to lead schools. The conclusion Sirotnik and Kimball (1994) come to in their review of school administrator preparation programs is that "special education is treated wholly inadequately, if at all, in programs designed to prepare school administrators…in effect, it would appear that special education has little or no special place at all in these programs" (p. 599). Current research focusing on principal preparation programs for leading special education is

sparse. However, it should be noted that of the programs that do exist, they do emphasize educating all students and ensuring that students excel (Sirotnik & Kimball, 1994).

For experienced principals, the conclusions appear equally dismal especially when it comes to their instructional leadership role specific to overseeing special education. Valesky and Hirth (1992) reported that 75% of all the states offer special education in-service trainings to practicing administrators aimed at addressing management, finance, discipline issues, and compliance matters, however virtually none reported offering professional development opportunities that emphasize teaching and learning or instructional leadership for principals.

For principal training in special education, Sirotnik and Kimball (1994) include recommendations that appear suitable for today's professional development models—require a "mini-course" or "tutorial" for principals who do not have a special education background or who are new to administration. The goals for such training would be to provide a baseline of knowledge for special education, integrate special education topics throughout the school curriculum, and use a solution-based approach to address current dilemmas.

In an effort to address the lack of skill and support for principals in special education, Goor et al (1997) describes a comprehensive training model that addresses essential beliefs, knowledge, skills, and reflective behavior of principals. The intended outcome of the teaching is to enable principals to become more effective in their role as leaders for special education in their schools. For practicing principals, effective professional development must be activity oriented, case based, and job embedded—activities must be practical and engaging and give principals the opportunity to explore their own beliefs and reflect on real-time, daily happenings in regards to special education. Goor et al. (1997) suggests that a wide variety of activities can be used to engage principals in the examination of cases that present current dilemmas and require that they explore their beliefs, use their current knowledge and skills, and practice reflective thinking. Goor et al. (1997) smartly suggests that principal trainings attend to matters of beliefs, past experience, and reflection about special education related matters prior to instructing participants about information and knowledge needed to carry out the leadership practices. Such a strategy would enable principals to become cognizant of their natural orientation regarding students with disabilities and then perhaps shape new views or expectations about their role as a leader for special education.

Professional development for administrators is often one of the last items most working principals set into their yearly schedule as a priority however it is essential for principals to participate in ongoing learning opportunities to refine their leadership practice. There is sufficient evidence indicating that instructional leadership for special education is an area of need and a desired training area (Monteith, 1994; Patterson et al., 2000). Educational Research Service ([ERS], 1999) looked at the need for professional development for principals and found that they repeatedly expressed a need to augment their expertise, professional, and communication skills but noted the current professional development activities within their districts lacked benefit to their role. Most professional development opportunities that address special education tend to solely focus on issues of compliance and legal matters and not instructional leadership concerns (Bays, 2004). Training opportunities that emphasize teaching and learning must be offered if principals are to be expected to lead their school-based special education instructional programs.

There are numerous professional organizations, districts, universities, or private institutes that offer ongoing training for principals however few specialize in matters such as special education leadership and the principal. In California, the Association of California School

Administrators, or ACSA, offers a 70-hour course over a 7-month period for aspiring or practicing special education administrators although any administrator is welcome to attend. The emphasis is not on specific principal special education leadership but general skills and knowledge for overseeing special education. In addition, ACSA also offers a principal training program, designed in the same manner as the special education administrator training, however the material devoted to principal leadership for special education is unfortunately minimized to approximately half a day over the 70-hour course. Moreover, the manner in which these trainings occur tend to be passive, i.e. lecture, reading, discussion with little practical application or problem-solving of current and real-time issues faced by participants. Another organization, the New Teacher Center, based in Santa Cruz, California, uses a coaching method to help guide new principals through the first 18 months of their principalship. This model focuses on developing the leadership skills and understanding interpersonal and cultural dynamics for principals rather than focusing on content knowledge or tasks. Coaches are typically former superintendents and principals with a legacy of success for leading their schools and districts. According the New Teacher Center, coaches are rigorously screened although they receive no training on special education leadership other than what they bring from their past experience (New Teacher Center; personal communication, 6/27/2012). This is a worrisome practice as evidence indicates that even experienced and veteran principals have expressed a need for training in special education leadership.

At the local level, one California school district developed its own in-house principal training program, made up of aspiring principals and producing administrators straight from its teaching ranks (Nelson, 2010). District level workshops are a common method of delivering professional development to practicing principals, however, location, time, and costs are often barriers to participation (Smith, Hofer, Gillespie, Solomon, & Rowe, 2003). For districts, relevance of appropriate content and follow-up support for transfer of knowledge and skill can be a hindrance. There are a paucity of venues for training principals regarding instructional leadership for special education and those that do may offer a single session workshop to provide general information or simply to raise awareness of concerns or issues within the field—there is little to no intent on changing practice or behavior.

Intervention methods that target changing practice and behavior require a longer-term (Kutner & Tibbetts, 1997) and more sustained approach or as Little (1993) concludes, "Professional development must be constructed in ways that deepen the discussion, open up the debates, and enrich the array of possibilities of action" (p.148). In an analysis of extant empirical professional development research in the area of teacher learning—a parallel to principal professional learning, Desimone (2011) finds that there is consensus in the literature on the main features of professional development and notes effective professional development includes the following five elements: 1.) Focus on content, 2.) Active learning by participants, 3.) Coherence with school/district goals, 4.) Duration should include at least 20 contact hours over a number of months, and 5.) Collective participation within an interactive learning community. Universities, private institutes, or local school district training programs and other professional development activities must ensure that appropriate training and ongoing learning opportunities are provided for new and experienced principals.

Conclusion

Special education has become a significant concern for elementary principals over the past decade as their roles have increased to ensuring successful outcomes for all students,

including students with disabilities. What we have learned from the research is that, in general, principals receive little to no formal training in instructional leadership for special education; both in pre-service and on-going professional development. The positive news is that most principals report that they see special education instructional leadership as an area of need and would appreciate course work or training. According to Montieth (1994), upwards of 95% of administrators in one study stated that such training would be beneficial in terms of performing their jobs. The challenge for professional development of principals regarding special education is to consider matters that address a wide range of both affective states and technical skills that include understanding principal efficacy, attitude, disposition, and beliefs, along with acquiring cultural proficiency about the uniqueness of special education, and lastly, obtaining technical competency for special education that addresses knowledge and skills necessary to lead (e.g. specialized instruction, disability information, and legal matters). As Jacobs, Tonnsen, and Chantelle-Baker (2004) accurately state, "Through good training and a willingness to be educated, principals can develop a sense of ownership of their students served in special education in the same way they do for their general education students and work to ensure programs and support systems that lead to student success" (p.11).

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In the next chapter, I present and discuss the theory of action as the center-piece for the theoretical model of this design study and introduce and define the *PULSE* workshop model of intervention.

CHAPTER TWO:
THEORY OF ACTION

Introduction

The theory of action created for this study maps out the specific pathway intended for change to occur in the form of a multi-session professional development intervention workshop series referred to as Principals Utilizing Leadership for Special Education or *PULSE*. The theory of action was created to provide the rationale and plan for how the intervention was constructed to "activate" the theory of change: Together, the theory of action and theory of change created the overall theoretical model for the operationalization of this design study.

In this section, I review the problem of practice for elementary principals as instructional leaders for special education. I present the theory of change process and necessary elements that acted as influencing agents of behavior change for elementary principals regarding their instructional leadership for special education. Then I summarize and explain the overall intervention process and activities along with the preconditions required for the implementation of this design study.

Explaining the Problem

Special education instructional leadership has emerged as significant challenge for elementary principals as their roles have increased to ensuring successful achievement for all students. Research has established that principals receive little to no formal training in leading special education. For elementary principals, a lack of efficacy about their special education leadership role, a lack of familiarity with the varied and unique aspects of special education and an absence of technical skill contribute to a diminished principal leadership role in the area of special education. Some examples of problematic behavior include less frequent principal visits to special education classrooms as compared to visits to general education classrooms; principal tendency to behave in a passive or aloof manner when dealing with special education-related matters; or generic feedback by the principal as a consequence of not understanding unique aspects about special education. As a result of these problematic practices, the elementary principals' role as an instructional leader for special education becomes weakened.

Theory of Change and Intervention

The theory of change outlined for this design study represents an evidence-based professional development workshop series, *PULSE*, which was designed to provide elementary principals with the knowledge, skills, and dispositions to improve their practice as instructional leaders for special education. Through an examination of the professional knowledge base related to principal leadership and special education, I identified three key leadership characteristics that are critical for principal success—*efficacy* in regards to their disposition, attitude, and beliefs; *cultural proficiency* in regards to the uniqueness or the special-ness factor of special education; and *technical competence* about acquiring necessary skills and knowledge specific to special education. The professional development intervention series consists of specific activities embedded into a sequence of five two-hour workshop intervention sessions referred to as the *PULSE* Workshop Series. The specific interventions were explicitly created to shift principal behavior from a problematic state to desired state: The end result targeting enhanced instructional leadership for special education.

As described in the model below (Figure 2.1), the theory of change and intervention includes the necessary processes that needed to occur in order to shift principal behavior from a "problem state" to the "desired state." In addition, the intervention design included activities intended to help affect principal leadership behavior in a positive direction and successfully address the design challenge.

Figure 2.1: Theory of Change and Intervention

Theory of Change and Intervention: What <u>learning processes</u> will need to occur (<u>if-then format</u>) to shift principal behavior from problematic to desired behavior?	**EFFICACY:** • *If, principals gain in Efficacy:* By examining beliefs and attitudes about special education; becoming aware of own perceptions, reluctance, and uncertainty to engage with special education; clarifying role expectation regarding special education leadership. • *Then, principals will be more likely to:* Display increased engagement regarding special education matters, interact with special education teachers with more confidence and care, visit special education classrooms more frequently. **CULTURAL PROFICIENCY:** • *If principals become more Culturally Proficient in regards to special education:* By understanding and appreciating the unique context regarding special education within their school setting; understanding special education teacher working conditions and isolation; learning to foster and cultivate collaborative relationships with special education teachers. • *Then principals will understand and be able to:* Accept the unique context of special education within their school setting, cultivate a more open and collaborative relationship with special education teachers, and lessen teacher isolation and possible attrition. **TECHNICAL COMPETENCE:** • *If principals develop more Technical Competence about special education:* By acquiring information and knowledge of special education practices; analyzing classroom practices to determine strengths and needs; learn a foundational baseline of information regarding special education and disabilities areas. • *Then principals will be better prepared to:* Interact with special education teachers in a more substantive and valued manner; utilize appropriate resources to help address special education matters, provide accurate information to special education teams.

Intervention Design:
 	
What <u>activities</u> will lead to the desired behaviors and successfully address the design challenge?
	Principals Utilizing Leadership for Special Education- *PULSE*
	Principals will participate in ***PULSE*** *to:*
	• Increase **Efficacy (examples)**:
	   o Examine experiences, beliefs, dispositions, and attitudes about special education through reflection and dialogue within learning dyad.
	   Increase visits and to special education classrooms by understanding what to look for, inquire about, and become familiar with.
	• Develop **Cultural Proficiency (examples)**:
	   o Understand the unique characteristics of special education programs within their school.
	   o Recognize the challenges of special education from the teacher's perspective, i.e. cross grade level curriculum, isolation, attrition issues.
	• Develop **Technical Competence (examples)**:
	   o Learn necessary information and knowledge about special education instructional and programmatic features.
	   o Acquire ability to understand learning profiles of students through dialogue with special education teacher.
	   o Learn skills to observe and analyze classroom practices through classroom "tour" and observation activities.
	   o Recognize quality instruction and classroom features.

Theory of Design Implementation

       The minimal conditions necessary for the implementation of this design study involved a number of factors related to participant selection. The principal participants needed to possess the following: strong regular education instructional leadership skills, openness to learning and coaching to improve practice of special education instructional leadership skills, ability to be reflective and vulnerable about own professional leadership practice including beliefs, skills, knowledge, behavior, and a reputation for supporting teachers. In addition, the target participant needed to be an early career principal working within their first or second year of their principalship. In addition, the principal needed to be willing to volunteer at least 10 hours as a participant in the *PULSE* workshop intervention series. Lastly the school must have at least one special education teacher on site that was also willing to volunteer and act as an additional source for impact data in this study. Without these preconditions, the implementation process of this design study could potentially be compromised or the outcome data regarding impact of the design may be negatively affected.

Theory of Intervention Design

       The organizational frame consists of the elementary principal as the unit of study, feedback from special education teachers regarding principal behavior, and my role as action researcher—see Figure 2.2 for a visual model of the unit of treatment.

Figure 2.2: Unit of Study and Treatment:
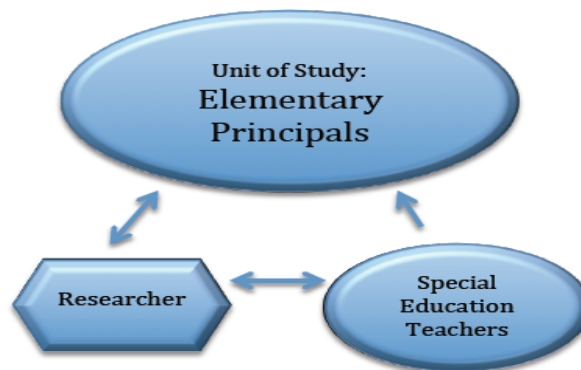
       The primary intervention tool for this design study consists of the *PULSE* (Principals Utilizing Leadership for Special Education) professional development workshop series for elementary principals. The *PULSE* workshop was created on the premise that elementary principals strive to be effective in their role as instructional leaders for all students, however most principals are underprepared for leading special education and acknowledge that training in this area would be beneficial for performing their jobs. As the researcher, I created and delivered the professional development intervention activities and my role with the two principal participants was to teach, listen, note, and observe how each principal responded to the design content and intervention process. As the sequence of workshops advanced over the three-month period, the two principals were asked to share and reflect during the workshop sessions on matters such as usefulness and feasibility of the workshop curriculum. This process occurred on an on-going and cyclical basis. The role of the special education teacher played an important part

in this study by establishing impact data, both baseline and outcome. The teacher focus of the structured interview was on instructional leadership behavior of their respective principal.

The *PULSE* workshop series was comprised of five intervention sessions, each with a sequence of specific learning objectives designed to address early career principal needs in the area of leadership for special education. Each learning objective was intended to address specific principal behavior related to establishing more enhanced leadership in special education. Refer to Figure 3 for details and description of the *PULSE* professional development workshop activities and sequence of topics specific to the intervention design.

Figure 2.3: *PULSE* Workshop Session 1 Focus on Principal Efficacy

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P̲RINCIPALS U̲TILIZING L̲EADERSHIP FOR S̲PECAIL E̲DUCATION *(PULSE)*

P̲ULSE **Workshop Series:**
Learning Objectives and Activities for Sessions 1-5

Session 1: Focus on Principal Efficacy
Learning Objectives:
- Understand beliefs, attitude, assumptions about students with disabilities and special education
- Understand researched-based behaviors focused on instructional leadership in special education

Session 1 Agenda and Activity Sequence:
- Provide orientation about dissertation research study and overview of *PULSE Professional Development Workshop* Series (including expectations for researcher and participant role {principals and teachers}
- Debrief regarding interview and feedback from questionnaire and dialogue about perceptions/insights
- Introduce constructs of essential beliefs, attitude, disposition, and reflective behaviors for school principals:
  - ✓ Activity 1: Review/chart/discuss vignettes from reference source, Goor, M.B., Schwenn, J.O., & Boyer, L. (1997). Preparing principals for leadership in special education. *Intervention in School and Clinic, 32*(3), 133-141
- Present and discuss instructional leadership role for principals:
  - ✓ Activity 2: Review/chart/discuss vignettes from reference source, DiPaola, M., Tschannen-Moran, M., & Walther-Thomas, C. (2004). School principals and special education: Creating the context for academic success. *Focus on Exceptional Children, 37*(1), 1-10

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Figure 2.4: *PULSE* Workshop Session 2 Focus on Cultural Proficiency

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Session 2 Focus on Cultural Proficiency
Learning Objectives:
- Learn about concept of "cultural proficiency" for special education
- Understand the unique role/experience of the special education teacher within the larger school setting
- Understand important aspects about the special education classroom organization and design
- Understand and use the *PULSE* Classroom Tour Guide created for use in special education classrooms

Session 2 Agenda and Activity Sequence:
- Brief check-in and review regarding PULSE Workshop 1 material and insights
- Introduce concept of "cultural proficiency" in regards to special education. Focus will be on: first identifying similarities and differences between general education and special education, then narrow focus to teacher working conditions and isolation, attrition, and principal-teacher communication and collaboration.
  - ✓ Activity 1: Chart similarities and differences between special education and general education; Review acronym/term list for special education-specific language and vocabulary (Appendix G)
  - ✓ Activity 2: Review and consider implications of research brief; review use of vignettes focused on special education teachers' unique needs from reference sources:

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- ✓ Wasburn-Moses, L. (2005). How to keep your special education teachers. *Principal Leadership, 5*(5) 35-38
- ✓ Billingsley, B. (2005). *Cultivating and Keeping Committed Special Educators: What Principals and District Leaders Can Do*. Thousand Oaks, CA: Corwin
- Introduce classroom walkthrough protocol for "touring" your special education classrooms:
  - ✓ Activity 3: Review *PULSE* Classroom Tour Guide and plan for "tour" experience within following 2 week period (Appendix D)

Figure 2.5: *PULSE* Workshop Session 3 Focus on Technical Competence

Session 3 Focus on Technical Competence
Learning Objectives:
- Identify quality factors and quality practices for special education teachers
- Understand importance and process for visits/observations to special education classrooms
- Understand and use PULSE Classroom Observational Protocol

Session 3 Agenda and Activity Sequence:
- Brief check-in and review regarding PULSE Workshops 1 and 2 material and offer insights
- Review Classroom Tour experience from past week:
  - ✓ Activity 1: Share insights and learning from "tour" experience. How did protocol work?
- Review principal current practice for visiting and observing in special education classroom including providing feedback:
  - ✓ Activity 2: Review video segment regarding classroom visits/observations and discuss implications.
- Introduce classroom *PULSE* Classroom Observational Protocol including quality practices specific to the special education classroom:
  - ✓ Activity 3: Use *PULSE* Classroom Observational Protocol during video segment focusing on classroom lesson

Figure 2.6: PULSE Workshop Session 4 Focus on Technical Competence

Session 4 Focus on Technical Competence
Learning Objectives:
- Acquire basic foundation regarding special education overview (California specific)
- Learn special education technical skills/resources and information to guide principal practice
- Understand consequences of common problematic intervention practices and long term-effects

Session 4 Agenda and Activity Sequence:
- Brief check-in and review regarding PULSE Workshops 1-3 material and insights
- Review classroom visit/observation and use of protocol (from previous session)
  - ✓ Activity 1: Discuss prior week session regarding the *PULSE* Observation Classroom Protocol
- Review Legislative Analyst's Office *Overview of Special Education in California* (2013) document:
  - ✓ Activity 2: Charting activity to learn new information from accompanying document:
    - A. Focus on: Features of special education; Assessment and eligibility/disability areas; Components of an IEP; Services and resources; Compliance and laws, etc.
- Introduce "Priorities for Principals" resources:
  - ✓ Activity 4: Review "Priorities for Principals" resource documents:
    - A. Special education timelines for principals (guide)
    - B. Student discipline and special education laws for principals (guide)
    - C. Problematic practices commonly found in schools regarding special education from reference source:
    - ✓ Heward, W. L., (2003). Ten faulty notions about teaching and learning that hinder the effectiveness of special education. *The Journal of Special Education, 36*(4), 186-205
    - D. Effects of reading/early literacy and long-term consequences of "waiting to intervene" from sources:
    - ✓ Cunningham, A.E., & Stanovich, K.E. (1997). Early reading acquisition and its relation to reading experience and ability 10 years later. *Developmental Psychology, 33*(6), 934-945;
    - ✓ *Waiting Rarely Works: Late Bloomers Usually Just Wilt* (AFT, 2004).

Figure 2.7: PULSE Workshop Session 5 Focus PULSE Review

Session 5 Focus on PULSE Review
Final Summary Agenda and Task Sequence: • Review process of PULSE intervention workshops and provide feedback to determine extent of learning that took place pertaining to the three target areas • Acquire critical feedback from principals regarding their experience with the study design process • Collect essential feedback about the content of the *PULSE* workshop series • Administer the post PULSE structured interview to both principals as a concluding activity

Conclusion

In this section the theory of action was presented and a description for how the design was constructed to activate the theory of change. I reviewed the problem of practice for elementary principals as instructional leaders for special education and described the necessary features that were created to affect positive leadership behavior change for elementary principals. I also explained the overall intervention sequence and presented activities that comprise the 10-week *PULSE* workshop series.

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In the next chapter I will review the research design and methodology selected for this intervention study.

CHAPTER THREE:
RESEARCH DESIGN AND METHODOLOGY

Introduction

Based on the theory of action, the research design chosen for this study is multifaceted. In this section, I present the methodological choices for the study and selection of participants and further discuss the "unit of treatment." Then, I review basic elements of the research that includes baseline data/impact data and design process data. Next, I present an overview of data collection strategies used in this study. Then, I discuss the procedures used for data analysis and issues related to reliability, validity, credibility, and transferability. Finally, I conclude by presenting safeguards against bias and issues related to rigor—both used to ensure rigor and protect against threats to rigor.

Research Design

Methodological Choice

The purpose of this study was to design a remedy for a real educational problem—in this case, the creation and implementation of a professional development intervention for elementary principals aimed at improving their instructional leadership practice for special education. This purpose lent itself to a design development study as the methodological choice whereby the researcher acts as the primary agent in designing the "action" or intervention and takes on the role as "action" researcher. The utilization of a dual methodological choice– design development and action research was intended to enable me to adjust, adapt, and respond to feedback and the unique needs of the two principals as the study process unfolded across the workshop sessions over the three-month implementation period.

Nieveen (2007) asserts that design research projects strive for two types of results: The first utilizes high-quality interventions created to solve complex educational problems and the second comprises the specific design principles that provide insight into the purpose and function of the intervention process. Using a design methodology over a more "traditional" research approach (experimental, surveys, etc.) permitted me to focus on a researched-based intervention while at the same time benefit from the evolutionary role of design research that integrated activities that fed the iterative and cyclical research process—both in a forward and as well as backward cyclical process (Van den Akker, 1999).

The "action research" role within this study required that I not only observe the "action" or intervention taking place but that I actively work to make it happen (Gummesson, 2000). Action research is less concerned about the success of the change process, since the primary goal is the exploration and understanding of the data—that is, how the particular change process was managed and implemented and as well as how reflection was utilized on the outcomes of each cycle and the design of subsequent cycles; these are referred to as process data points (Coghlan & Brannick, 2005). While I was the lead developer for this study, the collaborative nature of the study process with the two participating principals was also typical of insider action research (Coghlan & Brannick, 2005). As the principal collaboration portion evolved, the action research became a means to analyze, plan, change, and modify the course content and implementation cycles of the actual study.

According to Van den Akker (1999), design studies maintain four key characteristics that include: 1.) Preliminary investigations, 2.) Theoretical embedding, 3.) Empirical testing and 4.) Documentation, analysis and reflection on process and outcomes. In this design study, the four characteristics were incorporated and embedded into the research foundation and are further defined under four areas: The first feature addresses *preliminary investigations* which included a review of the literature base, consulting experts knowledgeable about this problem of practice, and analyzing ways in which, as a practicing special education administrator, I have addressed this problem in the past. The second involved *theoretical embedding* or the extent to which I applied a critical lens to developing the theoretical rationale for the design elements. In this design, the elements were based on an extensive literature review focused on elementary principals and instructional leadership for special education and insight learned from preliminary investigations with school administrators, including principals, regarding their instructional leadership for special education (see Inglesby, 2008). The third reference concerns *empirical testing*: Empirical testing is described as the approach of using data collected in this study through the theory of change and intervention to arrive at a conclusion. In the case of this study, a determination of the effectiveness of my design was based on pre and post interviews and extensive analysis of process data. The final area addresses *documentation, analysis, and reflection on process and outcomes:* Here I employed systematic documentation and included analysis and reflection on the design, the development, evaluation, and implementation process in addition to looking at study outcome data to determine overall impressions and findings.

Study Participants and Unit of Treatment

The research participants were two early career elementary principals and their respective special education teachers working at the same site. The process for recruiting the two elementary principals was through a direct inquiry: first through phone contact to the district superintendent then a similar phone inquiry to principals and the respective special education teachers at each school (Appendices G, H, & I). Once the initial informational contact was conducted and positive interest confirmed, I provided the two participating principals and three teachers with a "consent to participate" letter (Appendices J & K). The selected district was small, less than 3000 students, and maintains six elementary schools. Each school was of similar demographic size, socio-economic status, and similar achievement ranking. In addition, each school had similar special education program structures in place (i.e. at least one special education teacher on site). Specific characteristics for the elementary principal included: the desire for improvement in their special education leadership practice, effective regular education instructional leadership ability, reflective about own professional leadership practice; reputation for supporting teachers, minimum of one year as a principal, and willingness to volunteer 10 hours to this study as a participant.

The special education teachers' role for this study was a key factor to help determine the extent to which the behavior of the principal changed or was enhanced with the initiation of the intervention process. In this study, each school had at least one special education teacher on site that volunteered to participate in the study. In total, there were three special education teachers who volunteered to participate: two at one school and one at the other. Each special education teacher was administered a structured interview regarding various aspects of their own principal's special education instructional leadership practice (behavior), both at the pre-intervention period as well as post-intervention period.

As a participant-researcher who designed and facilitated the study including directing the professional development intervention, I was intimately involved at all levels and therefore my action research role encompassed what can be referred to as "simultaneous action and research in a collaborative manner" (Coghlan & Brannick, 2005, p. 13). Through the implementation of the theory of change process, I was able to evaluate through the data collection process the extent to which the design of the professional development intervention, i.e. the *PULSE* workshop series, impacted principal behavior to the degree it was intended.

Research Methods

Numerous research methods exist that can be used to explore challenges related to the working professional's problem of practice. For this study, a qualitative research approach was selected. The intent of qualitative research can be defined as attempting to understand a particular social situation (Locke, Silverman, & Spirduso, 2004). Learning to understand and address a particular social situation is akin to addressing the problem of practice for elementary principals in this design study. The exploratory nature of qualitative research was appropriately suited for the design challenge that sought to determine both the extent to which a research-based intervention process was able to enhance principal instructional leadership practice as well as examined the course by which the intervention process occurred. A number of characteristics of qualitative research, considered to be foundational elements, are cited in Figure 3.1, and were used during the implementation of this study (Creswell, 2009).

Figure 3.1: Characteristics of Qualitative Research (Creswell, 2009)

Characteristic	Use in *PULSE* Design Study
Natural Setting: data is collected in the field or site where participants experience the problem under study	Research conducted at school sites through interviews, observations, and in meetings
Researcher as key instrument: researcher gathers data or information	Researcher was sole participant collecting data and information
Multiple sources of data: sources of data include interviews, observations, and document review	Data drawn from multiple sources—interviews, observations, session discussions
Inductive data analysis: patterns, categories, and themes are built from the bottom up	Analysis was an inductive process and work back and forth between themes and various data sources
Participants' meanings: researcher keeps focus on learning the meaning that the participants hold about the problem	Focus was maintained on participant learning process related to problem-of-practice
Emergent design: the plan for research cannot be tightly prescribed as a shift may occur based on initial data	Research design was structured yet flexible to adjust to changes that occur during implementation
Theoretical lens: studies may be organized around a certain theoretical construct	The specified theory of change/theory of action was followed as the organizing structure for this design study
Interpretive: use of interpretative inquiry whereby both researcher and participant offer meaning and interpretation	Inquiry process incorporated both the participant interpretation and researcher meaning
Holistic account: includes developing a complex picture of the problem under study	Clearly identified "problem of practice" with focus on addressing issues at the principal leadership level

Design Impact Data

This research design carefully combined high quality interventions and activities with design principles resulting in an iterative and sequential development approach (Nieveen, 2007). Baseline and impact data provided evidence as to the effectiveness of the intervention and design principles by answering the question…*Did the design and content result in the intended outcome*? For instance, I examined whether the design contributed to a positive change in the principals' learning and behavior in regards to special education. I wanted to understand, once the intervention was completed, for example, if principals visited special education classrooms with greater frequency. I also investigated whether principal knowledge and understanding about special education increased from pre-intervention levels. In addition, I explored the extent to which principals interacted with deeper purpose with special education teachers.

Two types of activities were conducted to determine the extent of impact: Data consisted of baseline levels and outcome levels. The baseline and outcome data were measured through structured interviews with each principal during the pre and post intervention phase. In addition, the three special education teachers at each principal's school site were also administered a similar structured interview at the pre and post intervention time frame (two teachers at one school, one teacher at another).

Initially, principals provided baseline data regarding perceptions and experience about their own leadership behavior. This baseline was established through a structured interview and incorporated a Likert 1-5 rubric rating scale (Appendix A). Each special education teacher participated in a similar structured interview to establish baseline data about their principal's behavior using the same 1-5 rubric rating scale (Appendix B). For the structured interview protocol categorical rubric, principals and teachers "rated" their response to specific questions regarding principal behavior along the following Likert scale: 1 = Not at All; 2 = Limited Extent; 3 = Not Sure; 4 = Some Extent; 5 = Great Extent). In addition, there was the opportunity to explain and provide more detail to the "rated" response through a series of probing questions that were related to each question. The use of the rubric and the qualitative interview data were intended to provide a deeper level of understanding about the behaviors and perceptions of the elementary principals as well as provide critical perceptions and feedback from the special education teachers about their school principal. The structured interview protocol was re-administered after the principals completed the *PULSE* professional development workshop series ten weeks after the intervention began. In sum, the pre and post intervention findings from the structured interviews were analyzed to determine the principals' perception of their own learning and growth as well as to assess the teachers' perception of their principals' growth in special education leadership.

Design Process Data

Process data was used to capture the complexity of the development of the "change" process elicited by the design. As the study process unfolded, I attempted to be as flexible about the evolving process as possible based on the changing needs and feedback of the principals. Each workshop session had built-in opportunities for principals and the researcher to reflect upon the content and delivery of material and modify or change future sessions as needed. The line of inquiry for such reflections was fluid yet purposeful, as Yin (2009) states, "guided conversations rather than structured queries" (p.106). In addition, process data was used to determine process feasibility and implementation quality. Feasibility refers to whether the design was practical for a

specific context or situation. Implementation quality refers to the extent to which the design could be used as intended and whether the design components (i.e. activities, material, protocols, etc.) resulted in intended behavior change on the principals' part for enhancing their leadership for special education. The utilization of the structured interviews, the Likert rubric scale with question prompts, at the pre and post intervention level, defined the outcome data. As data was analyzed, patterns or themes emerged that could be connected to specific activities or instructional sequences that were provided during the intervention sessions. Each *PULSE* session had unique learning objectives that were addressed through the intervention activities and evidence was noted (direct quotes, observations, feedback, dialogue, activity notes) as to the extent of whether each principal met the learning objective using a 1-3 scale rubric (1 = not met; 2 = partially met; 3 = met).

The design process also included an observational feature intended for the principals to be observed while utilizing the *PULSE Classroom Observation Protocol*. The observational protocol was specifically created for use in a special education classroom to help principals' structure their visit and highlight the quality indicators of professional practice observed within the classroom (Appendix C). In addition, I planned to observe each principal utilizing the observational protocol that included an observation summary section to be used during the feedback session with the teacher. The intention was to collect a copy of the protocol after each use and code it accordingly. The coded data was intended to help gauge an early-stage learning level as opposed to a later-stage learning level of using the protocol and conducting the related feedback session. One important note about the *PULSE* Classroom Observation Protocol, in the implementation phase of the study, the use of this protocol became problematic and in the end, was not utilized. A description of the problematic implementation process is detailed in Chapter 4 regarding this instrument.

One other piece involved the learning process window of time: a three month "learning window" for principals was used to acquire new information as well as practice new behaviors and was considered as part of the design process. It was expected that as the study developed and moved along, there would be a need to adjust, change, or modify both the data collection strategies and also specific activities. It was my goal to remain open to learning about what dilemmas and struggles principals faced, therefore necessitating that the design process remain flexible and adaptable to new shifts or changes within the context of the study (Creswell, 2009). In essence, the process data collection strategy was fluid in order to continue with the intervention process while simultaneously reflecting on matters of feasibility and content quality based on principal feedback. Refer to Figure 3.2 below for details regarding basic elements that were used for the research and data collection strategies and data sources.

Figure 3.2: Basic Elements of the Research, Data Collection Strategies and Sources

Data Collection Strategy	Baseline Data Source	Impact Data Source	Process Data Source	Totals Activities
• Structured interview with categorical rubric e.g. 1-2-3-4-5 • Follow-up prompts for more depth of response	Elementary Principals (2): determine pre-intervention level of principal behavior based on rubric and interview. What qualitative indicators were present regarding principal behavior?	Elementary Principals (2): post interview - evaluate impact effect of design and intervention. Is there a change in principal self-efficacy, cultural proficiency, and technical competence?	Did principals learn what was taught in workshop as indicated by lesson objectives?	4 Principal structured interviews (pre and post)

• Structured interview with categorical rubric e.g. 1-2-3-4-5 • Follow-up prompts for more depth of response	Special education teachers (3): determine pre intervention level of principal behavior from teachers' perspective. What qualitative practices were present regarding teacher participation and feedback?	Special education teachers (3): post interview - determine impact effect of design and intervention. Do teachers perceive or notice new behaviors by principals?	Review interview structure of rubric and follow-up prompts.	6 Teacher structured interviews (pre and post)
Feedback during workshop sessions	Consider feedback or direct quotes	Consider post intervention feedback or direct quotes	Are learning objectives being met?	Multiple opportunities
Observations	• 2 observations of principal classroom visits at initial stage of intervention and follow-up feedback session with teachers.	• 2 observations of principal classroom visits after intervention sessions and follow-up feedback session with teachers. Is there a change in behavior?	Observations of principals classroom visits at initial stage of intervention and follow-up feedback session with teachers.	4 Observations
Design Development & Action Research Role	• Audiotape structured interviews with principals and special education teachers • Scribe workshop session notes • Researcher field notes (own reflection)	• Audiotape structured interviews with principals and special education teachers • Notes from workshop sessions • Researcher field notes (own reflection)	Consider adapting workshops as necessary based on principal expressed needs Researcher field notes (ongoing)	

Data Analysis - Analytical Procedures

The process of data analysis focused on making sense of the information and data collected. This sense-making process was similar to what Creswell (2009) referred to as "peeling back the layers of an onion" (p.183). The specific strategy used for understanding and analyzing the data followed a linear process as suggested by Creswell (2009). The structured interviews were audio recorded and transcribed and workshops session observations clearly and authentically captured. Prior to the formal coding process, I informally scanned the data sources and captured impressions via notes and summary sheets, checking to determine if preliminary patterns or impressions emerged. For the next step in the analysis, I determined baseline and impact data: This source was very straightforward to evaluate since a rubric was used to determine level of choice however the qualitative interviews via audio recording required more detailed coding (Appendix L). The coding of data was used to generate and identify themes and patterns of evidence and to "chunk" the evidence material into manageable pieces (Creswell, 2009). Once the evidence had been organized, the next step was to read through all the data and reflect on the overall meaning. I used a strategy similar to Yin's (2009) "five minute rule" for determining the level of significance of evidence and deciding the kind of data I must pay attention to and what data I should ignore. I used a triangulation strategy on different data sources by examining evidence from the various data points (i.e. interviews, observations, my

own notes, and feedback from the principals, and teachers). These multiple data sources allowed me to build logical justification for patterns and themes (Creswell, 2009). The more frequent corroboration of data the better chance I had for presenting stronger claims in the findings section for this study. For the process data, to determine the extent to which each principal met specific learning objectives, I noted the evidence through either a low inference observation and then followed-up with a more direct principal quote where necessary and ranked the frequency on a 1-3 rubric scale to determine level of success. The 1-3 scale allowed me to differentiate between the two principals and remain cognizant of their individualized progress over the intervention period. During the entire data analysis process, I was continuously evaluating the intended purpose of the design study to ensure I maintained focus on the logical findings.

Reliability, Validity, Transferability

In qualitative research, reliability refers to the extent to which the researcher's approach is consistent so that the design may be repeated across different researchers and over time (Creswell, 2009). Clear and consistent procedures and protocols were used across all facets of the data collection process. During the *PULSE* professional development workshop sessions, schedules and agendas were followed and each workshop session had built into its design, a time for reflection and feedback about the workshop experience. The baseline and impact data collection processes was standardized to a degree allowing for consistent pre and post data collection while process data followed a fairly structured and planned sequence of activities but also allowed for principal feedback to influence the content and design process as deemed appropriate from the researcher's perspective.

The construct of *validity* is considered a significant strength of qualitative research and determines whether the research measures what it was intended to measure (Creswell, 2009). In this design study, an important measure of validity involved how the design process contributed to the outcome, specifically that the *PULSE* workshop activities contributed to "new" or enhanced behaviors by elementary principals as indicated by the impact data.

For the context of a design study, transferability refers to the extent to which an intervention can potentially be transferred to a different context and result in similar findings (Van den Akker, 1999). The degree to which the two contexts may be similar would allow a higher degree of transferability and the results could therefore transfer across specific situations. In the current study under discussion, transferability was limited by the unique characteristics of the researcher and principal participants—specifically elementary principals. Given this context, I provided specific requirements and details about the participating principals as well as the specific content of the intervention workshop sessions so this information may be considered in any future iterations of *PULSE*. By providing clear and precise details of each aspect of this design development study, future researchers would be able to determine whether the findings can be transferred or just how applicable these findings may be to their unique context.

Ensuring Rigor, Threats to Rigor, Bias

Design studies, by their developmental creation, are vulnerable to issues related to rigor and researcher bias. In this design study I took on an active role in the development and implementation, therefore the rigor associated with the action research paradigm also was considered. Creswell (2009) suggests a number of strategies to enhance the overall rigor, quality, and accuracy of qualitative studies therefore I used multiple sources of data collection: Use of a

Likert rating rubric with the structured interviews, principal feedback, teacher feedback, direct quotes, and researcher observations were utilized. The use of a multi-source method of data collection allowed triangulation as a technique to examine common themes and patterns through a cross-data source process. Protocols for interviews and observations were well designed and followed. Once the data was collected, coded, and analyzed, I employed member checking as an opportunity to check the accuracy of identified themes or patterns with the original participants during the summary session. In addition, I engaged in a self-reflective process to reduce bias and make transparent the role that I held in relation to design features and the participants in the study. I sought feedback about the study from an advisor and critical-friend colleague similar to a peer de-briefing method. This critical-friend tactic proved essential during the analysis and write up of findings. The critical-friend acted as a relevance test to determine how the research and findings came across and if it resonated with someone else other than me. In the end, I also used what might be referred to as an external auditor in a similar fashion to an independent investigator. This individual also provided critical feedback and opinion about the strengths of the study design and essential comments concerning data analysis and presentation.

The concept of rigor in action research is also addressed through issues related to bias and how data are generated, gathered, and evaluated (Coghlan & Brannick, 2005). Pertaining to the researcher, multiple roles as researcher, designer, and actor in this design study may be subject to advocacy bias. Advocacy bias occurs when the values of the researcher affect the conduct of the study or the findings (Stake, 2006). There are a number of factors that contribute to an advocacy bias: Issues such as the researcher's hope of finding the program successful, the desire to reach conclusions that are useful to others, and the want to generate findings that will produce a certain outcome (Stake, 2006). I embarked on this development design study with the intent of delivering a professional development workshop series to improve elementary principals' instructional leadership practice for special education. It was my desire to be successful in this outcome however adhering close to a defined procedural process which included the use of session agendas and learning objectives as well as triangulation of data during the analysis phase helped contribute to lessening this this potential bias (Creswell, 2009).

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In the next chapter, I present the findings for this design study for both impact and process data.

CHAPTER FOUR:
FINDINGS

Introduction

As with every study, there is a story and this design study is no different. In this chapter, I present and analyze impact and process data that will be reviewed and summarized as evidence for assessing the effectiveness of intervention activities and the design as a whole. In section 1 of this chapter, I focus on impact data and the two types of activities that were conducted with principals and teachers to establish baseline and outcome data. Impact data consists of pre-and-post intervention structured interview data that were collected from the two principals and their respective special education teachers. In an effort to utilize multiple data sources to confirm or disconfirm findings, I carefully analyzed and summarized teachers' perceptions of principals' behavior from the pre to post intervention stage as means to further "validate" the extent of impact of the intervention and design process on principal behavior change. In section 2, process data is presented and analyzed and includes feedback and reflections from principals about the *PULSE* experience, including how new skill or information was utilized and relevance to their special education leadership work.

As a brief review, principals and the site special education teachers were given a nine question structured interview using a 1-5 Likert scale rubric; i.e. 1 = Not at All; 2 = Limited Extent; 3 = Not Sure; 4 = Some Extent; 5 = Great Extent (See Appendix A and B). The scale was designed as a tool for principals to "rate" or "rank" perceptions of their own special education leadership behavior across the three domains that are being targeted in this design study (i.e. efficacy, cultural proficiency, technical competence for special education). The structured interview included a number of probing questions designed to solicit feedback about the "rated" response (e.g. "Tell me more about that classroom visit"…or "How did you know the information you shared was useful?"). The intent of the follow up question probe was to be able to understand in more depth, the thinking behind their question rankings and to be able to compare rankings and change of "thinking" upon the post intervention follow up. For example, if a principal gave a ranking of 2 (limited extent) at the initial interview on a question and then upon the post intervention follow up, gave a ranking of 4 (meaning a positive increase in behavior) for the same question, I wanted to understand specifically why this ranking improved, hence I needed to ask specifically about their past ranking and new ranking. A similar structured interview was also administered to the special education teachers at each principal's school with probes adjusted to focus on principal leadership behavior from the teacher perspective.

Taking into account both principal and teacher data review, overall impact analysis suggests that principal behavior shifted in a positive direction across the three key focus areas of this study: principal efficacy, cultural proficiency about special education, and technical competence. In section 1, an analysis of each principal's structured interview ratings and the subsequent interview data will first be presented. Then a similar analysis of the special education teacher's structured interview ratings and response data will be reviewed and summarized. Where appropriate and possible, I included direct feedback from both principals and teachers as further evidence connecting a respondent's structured interview ranking with their rationale for answering the questions in the way they did.

Section I: Impact Data and Analysis

Structured Interview Findings (Principals and Teachers)

The nine-question structured interview was made up of three questions from each key focus area targeting principal leadership behavior: *principal efficacy, cultural proficiency about special education, and technical competency* (See Appendix A & B). In the analysis below, each key focus area will be reviewed and analyzed. For example when reviewing data pertaining to *principal efficacy*, first each principal self-rating and interview will be summarized and then each teacher rating and interview regarding their perceptions of principal leadership at their school. For the two principals, the pseudonyms of Erin and James will be used. In addition, to identify the special education teacher, the terms RSP (Resource Specialist Program) or SDC (Special Day Class) will be used.

Principal Efficacy

Principal Erin's Self-Rating for Efficacy

Principal Erin rated herself with little change from the pre-intervention stage to the post-intervention stage on two questions with the exception of Question 3 regarding the key focus area *Principal Efficacy*. As shown in Figure 4.1, Question 3, Erin indicated an increase in confidence with solving special education-related problems upon the post intervention follow up as she reflected:

> I tell my team that we are here to work together. So, I think confidence in building
> a strong team and being able to collaborate is important. You don't have to know
> all the answers. Confidence isn't knowing all the answers, it's how you conduct
> yourself as a leader.

Figure 4.1: Focus Area Principal Efficacy for Principal Erin Self-Rating (Pre/Post)

Principal Efficacy: Principal Erin (self-rating)
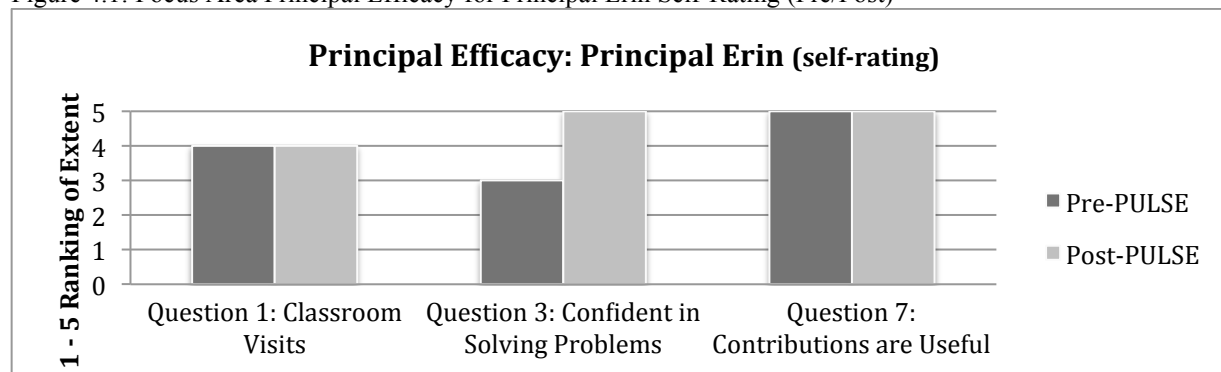
Questions 1 and 7 were rated in a similar manner in the pre and post phase however with the inclusion of a number of follow-up probing questions, I was able to solicit feedback regarding why Erin answered questions in such a manner (ranking of 4 for Q-1 and 5 for Q-7). During the pre-*PULSE* phase, for Question 1, I followed-up and asked, "With what frequency do you visit special education classrooms?" Erin responded:

In the SDC, I visit that class every day but the resource class, it's more like once a month. I have to be in the SDC every day. The teacher is really green and I had to set up the class after the year started. Sometimes she (the SDC teacher) doesn't even show up. It can be chaotic.

During the post *PULSE* phase, I then inquired about her visits compared to visiting general education classrooms and Erin stated:

I try to get to all the classrooms regularly. Like a couple-of-times a month. If there are concerns then I have to get in there more. Like the SDC every day. I visit the resource class a bit more now…it's on my radar too.

For Question 7, Erin's pre and post ratings were unchanged however her response revealed evidence of increased learning from the *PULSE* intervention content. During the pre PULSE interview, when I asked "How can you tell your contributions in IEP meetings are useful" Erin replied:

Well it's only me at this school who handles special education and all the meetings too. It was a huge learning curve. I get good feedback from parents and the SDC teacher does what I say so we are on the same page.

During the post intervention interview, Erin included a statement about staying out of legal issues as evidence that her contributions are useful. Erin stated:

I think I just handle things here and we don't have any (current) legal issues so I think I am doing OK. I think we discussed (in a PULSE session) how keeping communication channels open with parents is the best tool to use and parents respond to that.

In Question 3, Erin revealed a more decisive opinion about her confidence level whereby she moved from a neutral rating of "3" to a definitive rating of "5". Upon follow-up, Erin initially said she was "not sure about her effectiveness" however she indicated that she has always been fairly confident in getting through challenges. Over the past two years she has been able to better hone her leadership skills including better managing special education at the school. Erin stated:

When they (the District) decided to open an SDC at this school, I was ok with it. They promised help…setting it up…finding a teacher. In the end, I found the teacher and set it up and I'm still setting it up.

The SDC was created about six weeks into the start of the school year and Erin reflected:

I took it on but didn't know it would be so hard. I had to talk to a lot of colleagues and evaluate what was successful and what was not and then change what I needed to. I'm still evaluating it even at the end of the year.

During the post *PULSE* interview, Erin shared that the ability for her to "consult" and talk about special education issues during the *PULSE* time had been very helpful to her by providing a predictable time and place to focus specifically on special education as she reflected, "Allocating and dedicating time and energy to working on special education was a useful and valuable leadership endeavor. Even for the limited time we were together."

Teacher Ratings of Principal Erin for Efficacy

Teacher 1, the RSP teacher, indicated in Question 1 that Erin visited her classroom to a *limited extent* at the pre-*PULSE* level however there was an increase to *some extent* by the end of the intervention time as revealed in the data. Teacher ratings of Erin for Principal Efficacy are presented in Figure 4.2 below. Teacher 1 (RSP) indirectly attributed the increase with Erin's visits to participating in the *PULSE* workshops during the post-*PULSE* interview where she stated:

> Most principals don't spend much time coming into my class (RSP classroom). Over the last couple of months, Erin has come in a lot more. In fact we've been having some of the IEP meetings in my room… That's a good thing… she wants to be here more in my room.

Figure 4.2: Focus Area Principal Efficacy as rated by Erin's Teachers (Pre/Post)
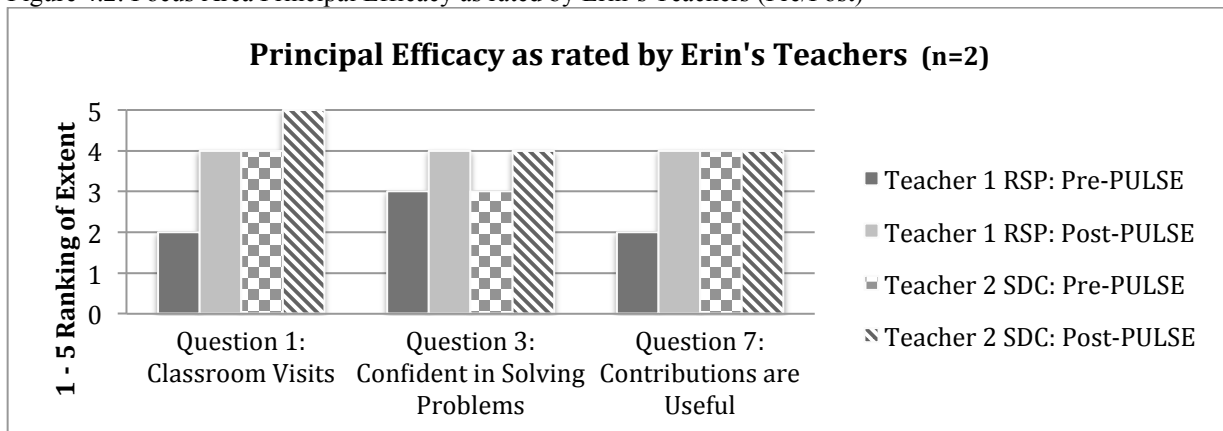
In regards to Question 3, Teacher 2 (SDC) rated Erin at level 4 for the pre-*PULSE* and level 5 for post-PULSE—both strong indicators that Erin visits this particular classroom with regularity. It is important to note that Erin shared that this is a new class with an inexperienced teacher who requires a significant amount of supervision.

Question 3 indicated that both teachers (RSP and SDC) viewed Erin's *confidence level for solving special education related problems* in a similar manner—from the pre to the post intervention time frame. As revealed by both teachers, Erin's confidence level showed an increase from a ranking of 4 to 5. Teacher 1 (RSP) shared that she saw Erin "gaining in confidence over the course of her principal position…from last year to this year, there is a difference." In a follow-up question, I asked, *what do you attribute this to*? Teacher 1 responded, "She seems to be learning by doing the job and being more involved in special education as of late." Teacher 1 (RSP) did not directly attribute Erin's apparent increase in confidence to her participation in the *PULSE* workshop however the fact that Erin is *perceived* as paying more

attention to special education issues along with gaining confidence suggests a positive shift in leadership behavior.

Both teachers identified Erin's post-*PULSE* "contributions in IEP meetings" in Question 7 as useful with a ranking of "some extent" (Level 4). Teacher 1 (RSP) provided an initial rating at a "limited extent" level but upon post-*PULSE* interview she increased it by two levels. During the follow-up question phase at the end of the *PULSE* sequence, Teacher 2, the new SDC teacher talked about Erin as being instrumental in her first few months of the year. Teacher 2 (SDC) stated, "Erin has been a lot of help to me this year and has connected me with a buddy teacher from another school. This has been really great."

Principal James' Self-Rating for Efficacy

As shown in Figure 4.3, ratings from Principal James' pre to post intervention feedback are fairly dramatic in that he rated himself higher on all three areas associated with the focus area of *Principal Efficacy*.

Figure 4.3: Focus Area Principal Efficacy for Principal James' Self-Rating (Pre/Post)

Principal Efficacy: Principal James (self-rating)
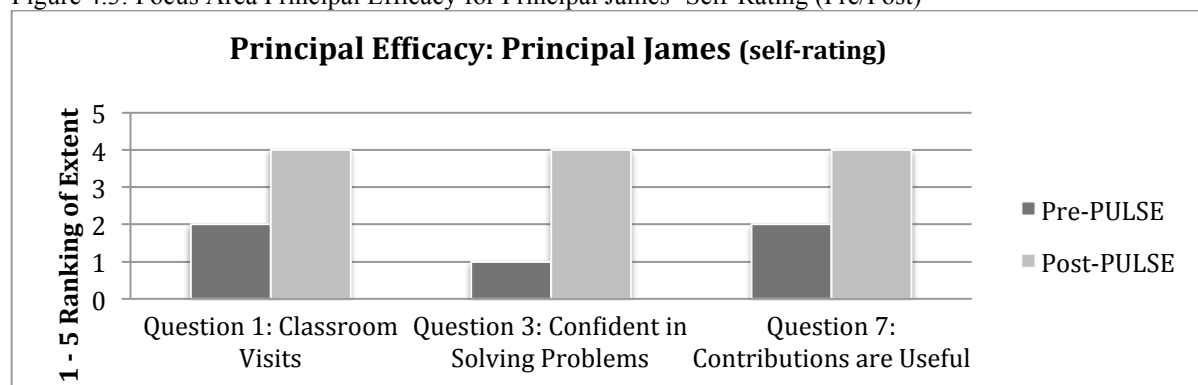
In Figure 4.3, Question 1 pertained to visiting special education classrooms where in the initial rating and subsequent interview with James, he rated his extent of visits as *limited*, or a ranking of 2. Upon a follow up probe inquiring with what frequency he visits the classroom, James indicated that he tries to get into the resource class when he is able. As James stated, "I get there when I can." Upon follow-up, when asked about his visits compared to general education classrooms, "I just visit those rooms more." When asked why he visits general education classroom with more frequency, James stated, "I don't know why. Maybe it's just easier to stop into the other classrooms. Maybe because the resource room is out back and I pretty much leave *them* alone." I learned that *out back* meant in a portable at the end of the third wing of classrooms, i.e. room 19 and *them* referred to the special education resource room.

Upon the follow-up survey and interview at the end of the intervention period, data from James indicated that he had increased his frequency of visits to the special education classroom with a rating of 2 to 4. When asked if some of the *PULSE* tools and assignments provided from the workshop helped him understand the structure of the special education program, James' recalled that the expectation during the *PULSE* period to visit and become more knowledgeable about special education was a helpful motivator. James reflected:

During one of our *PULSE* sessions, you asked us to visit and tour the special ed classroom… which I thought wasn't something I really needed to do. But I did it and Marty (the resource teacher) was great about it… about me coming in.

The contrast to pre and post intervention feedback for James in Question 3 was remarkable as well. James indicated his *confidence in solving special education related problems* was negligible as marked by his rating of 1 on the 1-5 Likert scale. When asked the probe, *Explain how confidence plays into these tasks*, James stated, "Well I guess I'm learning a lot about special ed… or should be. This isn't something I know much about… but I can be open to it." When asked to provide a ranking for Question 7 during the post interview, James' rated himself at a level 4, up two levels from his initial rating. When asked to reflect upon a positive contribution he provided during a recent IEP meeting, James had difficultly recalling a substantive contribution, but did state:

> I'm learning about the process and details and can always improve and learn more in managing special ed at my school. That's one of the good things about meeting periodically about special ed. I don't always know the right resource to get or who the best person is to call for an answer."

Teacher Ratings of Principal James for Efficacy

In James' school, the one special education teacher is a veteran teacher with extensive special education experience. She is a confident individual, assertive, well organized, and operates the resource room as a rigid and technically tight program. This teacher shared with me that she has been at the school for 22 years and has seen many principals come through. In the pre intervention phase, the resource specialist program (RSP) teacher indicated low ranking levels of behavior for James indicating he does not visit the classroom much, has a low level of confidence about problem solving, and contributions in IEP meetings were considered weak. Refer to Figure 4.4 for impact data from the special education teacher in James' school.

Figure 4.4: Focus Area Principal Efficacy as rated by James' Teacher (Pre/Post)
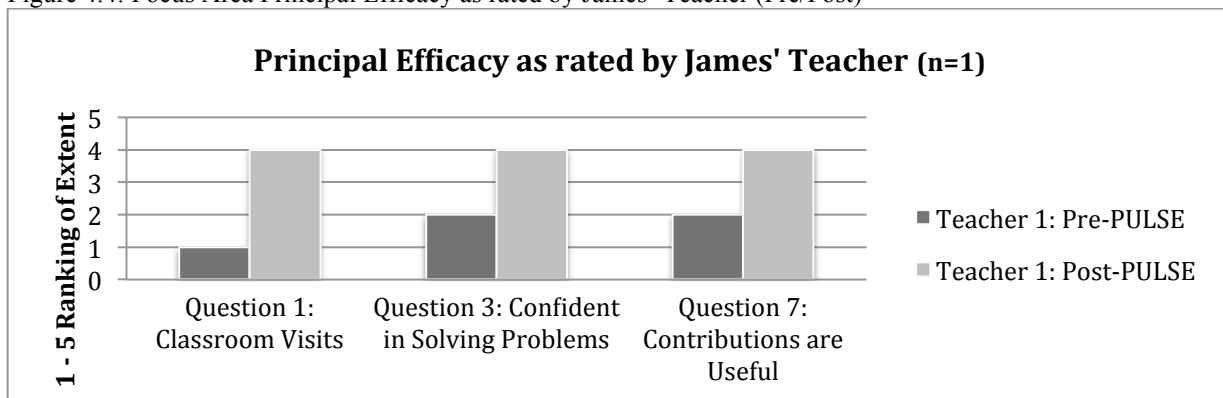
Upon the post intervention, the teacher ranking areas showed an increase— virtually shadowing how James' own perceptions were ranked. It is interesting to note that the special education teacher (Teacher 1) and James' rating were identical upon post intervention suggesting

a positive shift in behavior as perceived by both James and the teacher compared to pre intervention rankings.

Cultural Proficiency:

Principal Erin's Self-Rating for Cultural Proficiency

Under the key focus area of *Cultural Proficiency* about special education, as indicated in Figure 4.5, Erin indicated moderate to high rankings for Question 4, *open and collaborative relationships*, and Question 5, *understanding unique differences*. The data suggests positive self-perceptions of how she views her own relationships with special education teachers as well as her own understanding about the unique nature of special education.

Figure 4.5: Focus Area Cultural Proficiency for Principal Erin Self-Rating (Pre/Post)

Principal Cultural Proficiency: Principal Erin (self-rating)
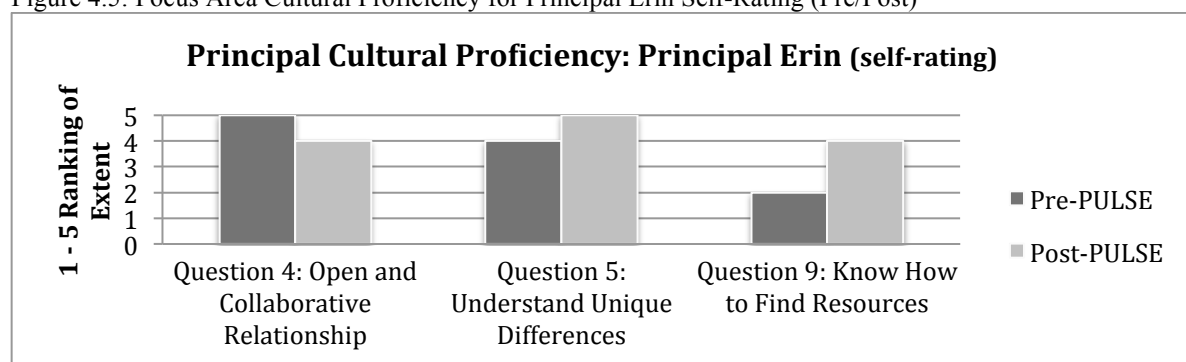
In an unexpected occurrence, for Question 4, Erin rated herself higher (level 5) upon the initial survey and interview than at the post intervention interview stage. Upon the post intervention interview, Erin appeared more reflective in her relationships with teachers (collaboration, etc.) and this may have tempered her response by indicating a level 4 ranking. Erin stated, "By reflecting on my relationships with staff, I think I'm more honest with myself. Related to Question 5, *understanding unique differences*, Erin pointed out that the need for her to be present in the special education SDC room has provided her with good insight into how difficult teaching a wide range of students can be. Erin shared:

> I mean the students are K through 4th grade and have very different needs. It would be a lot of work for an experienced teacher let alone a first year. I've learned a ton just being in there. Then there are three adults to manage too.

Erin indicated in Question 9, the extent of her ability to find resources for special education at a *limited* level— or ranking of 2, indicating a low level perception in identifying appropriate support in special education. In the follow-up interview, Erin recalled the difficulty in knowing all there is to know as a principal. Erin reflected:

> I have new special ed staff, I'm new, so it's hard for me to rely on them to know everything… I usually email the director (of special education) to get an answer. Sometimes I just email everyone in my special ed department just to see what I get.

During the 10-week *PULSE* workshop intervention cycle, specific content focused on identifying key individuals and sources of information helpful for a new principal, i.e. form a trusting communication bond with your school psychologist or specific resources, agencies and websites that serve the local region for students with disabilities. Erin relayed a story about her ability to help one parent who had inquired about summer camps for her 3rd grade son. Erin stated:

> I can honestly say… it was so good to know what to say to this parent who happened to ask about summer activities for her son…I thought about it and then remembered the folder that I saved and was able to give her information about Dolphin Swim Club (for children with disabilities).

Teachers' Ratings of Principal Erin for Cultural Proficiency

The special education teachers working with Erin, as indicated by their responses, showed a positive trend for Erin's development of an *open and collaborative relationship* from the pre to the post intervention follow up (Figure 4.6).

Figure 4.6: Focus Area Cultural Proficiency as rated by Erin's teachers (Pre/Post)
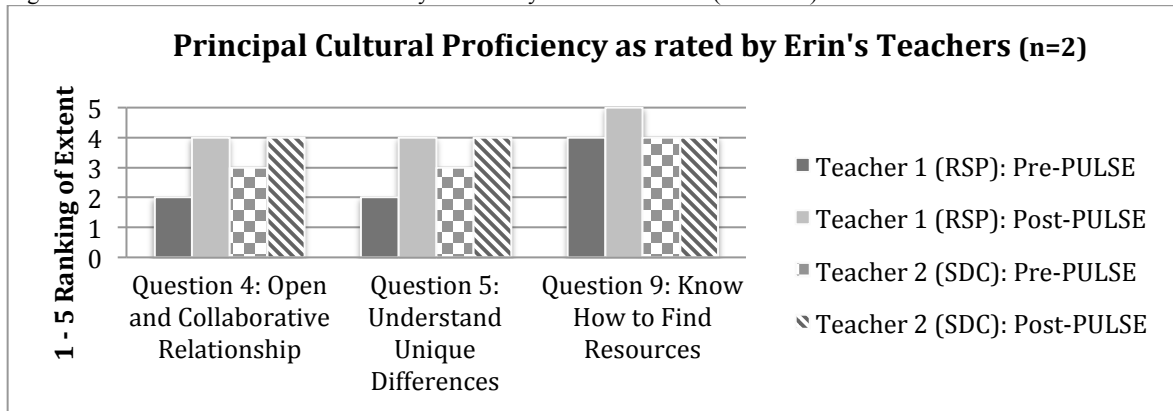
Teacher 1 (RSP) indicated that she has been at the school a while and has worked with numerous principals. Teacher 1 shared a very poignant perspective about Erin as her principal with her statement, "She (Erin) doesn't have to supervise me much. Usually principals leave me alone. I like that." Teacher 1 rated Erin at a low level on both Question 4 and 5 indicating a *limited extent* for the presence of specific behavior related to an *open and collaborative relationship* and understanding the *unique differences* about special education. Upon the post intervention follow-up interview, each ranking moved into the positive range with ranking of 4, *some extent*. When asked about this apparent change in rating of Erin's behavior, Teacher 1 (RSP) stated, "Erin can walk the talk and if I give her the benefit of the doubt, she does want me to be successful." Upon further prompting from me about this point, Teacher 1 (RSP) stated, "I do see her really trying and helping me. She gives me praise for what I do with kids. I'm feeling supported about what I do." In regards to Question 9 about *finding resources*, it is interesting to note that both teachers perceived Erin as a resource of information about special education. Both teachers ranked Erin higher than Erin's own perception at the initiation of *PULSE*.

Principal James' Self-Rating for Cultural Proficiency

Under the focus area of *Cultural Proficiency*, James' self-rating indicated he was uncertain about his connection with teachers in regards to having an open and collaborative relationship (Figure 4.7).

Figure 4.7: Focus Area Cultural Proficiency for Principal James' Self-Rating (Pre/Post)
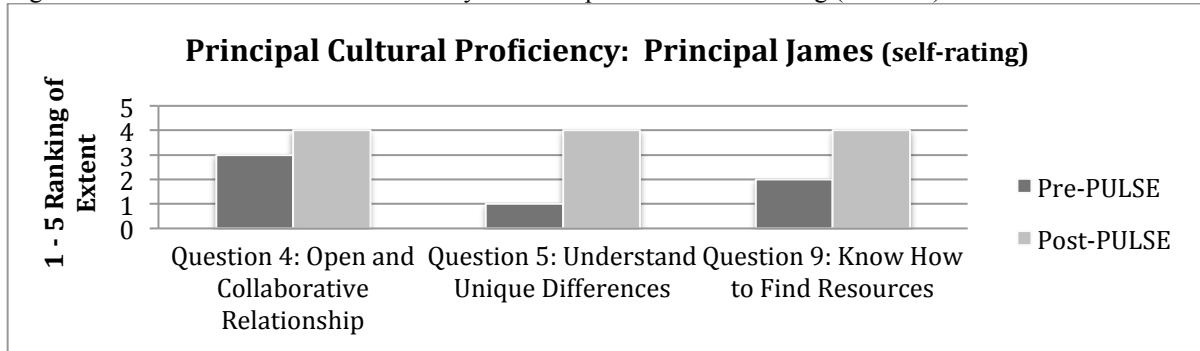
During the follow up inquiry, I prompted James for more details and he very candidly said, "I never really thought about my relationships with teachers…other than I get along with them." In regards to Questions 5 and 9, James gave a pre-PULSE intervention ranking for his own perception at a level 1 and 2 respectively. In an attempt to gain insight into his low rankings, I probed for a more in depth response by asking James to tell me more about his ranking. James replied, "I don't know much about special ed. I just expect and assume the teachers know what they're doing."

Teacher Rating of Principal James for Cultural Proficiency

Overall, the teacher ratings of the three target areas within this focus area for James increased at the post-intervention level. The special education teacher working within the school viewed James' sense of an open and collaborative relationship initially with a neutral response. By the end of intervention period, upon follow up, the special education teacher moved to a more positive ranking, level 4, indicating positive movement regarding her perceptions of James' *open and collaborative relationship* with staff (Figure 4.8).

Figure 4.8: Focus Area Cultural Proficiency as rated by James' Teacher (Pre/Post)
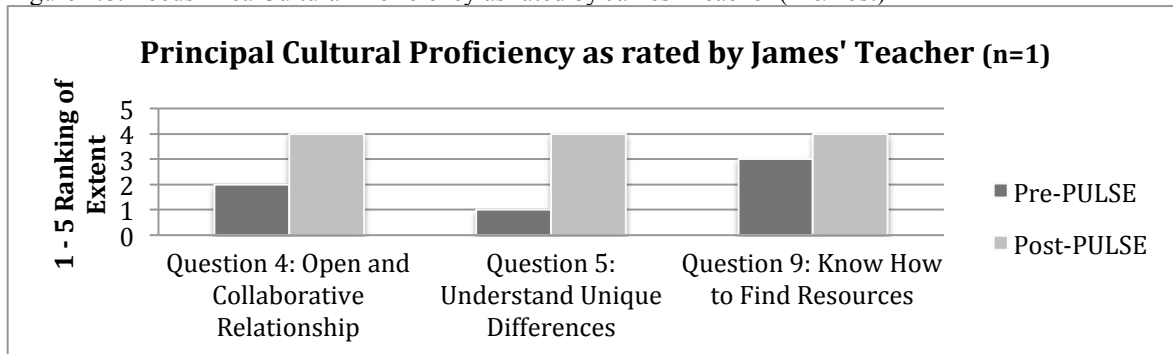
According to the special education teacher, during the pre-*PULSE* interview, she viewed James as needing direction and support, "I keep things on track for him and he pretty much

doesn't come in here." This same teacher after the 10-week period had a different perspective for Question 4 regarding James' efforts in behaving in a more collaborative manner. During her post intervention response, she moved her ranking from a level 2 to level 4 showing some change in perception. When asked what the change in perception could be attributed to, the special education teacher indicated that James was visiting her classroom with greater frequency and overall just paying more attention to her classroom.

For Question 5, pertaining to James understanding the unique attributes of special education, the initial ranking was quite low at level 1, however upon the post-interview the change was dramatic moving to a level 4. Upon the follow-up questioning during the post interview about her change in James' understanding about unique aspects of special education, the RSP teacher shared:

> We even talked about moving from this classroom (RSP room) to a location closer to the office. He told me he thought it would be less isolating for the class and for me to be in a more central location. It was pretty cool.

This particular statement about moving the classroom is of particular significance as there was a *PULSE* workshop dedicated to understanding the unique needs of special education staff and issues related to isolation for special education teachers and how the location of the classroom can be a factor in contributing to this problem.

For Question 9, the RSP teacher pre and post were not too disparate, with a ranking of 3 and 4. When asked about this during the follow-up, the special education teacher stated, "James relies on me a lot so I guess you could say he is resourceful in that respect."

Technical Competence

Principal Erin's Self-Rating for Technical Competence

Across all three components of the *Technical Competence* area Erin's post-intervention ratings revealed a positive behavioral change from the initial pre-intervention structured interview (Figure 4.9).

Figure 4.9: Focus Area Technical Competence for Principal Erin Self-Rating (Pre/Post)
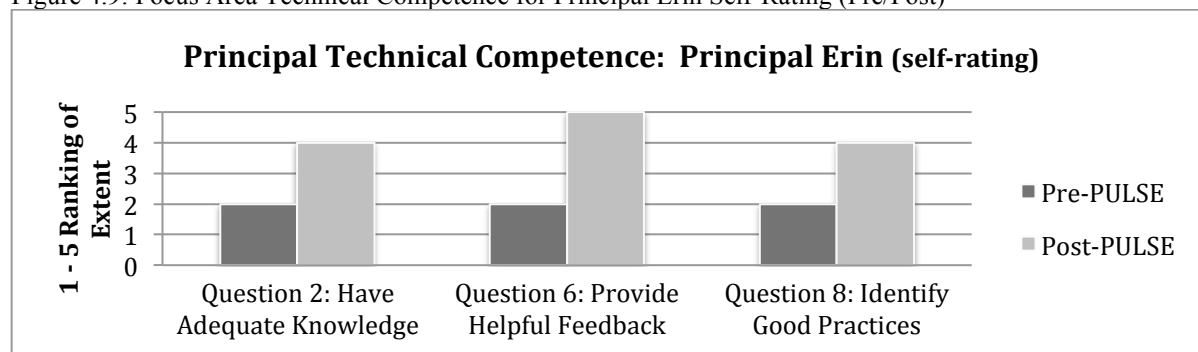
Upon the initial interview, Erin shared that she always been realistic about the depth of her knowledge when it came to special education. Erin stated, "When it comes to special ed, I am

always open to learning more." As indicated by the modest increase, ranking of 2 to 4, for Erin's pre and post intervention response to Question 2, the data shows growth in this area. Erin shared:

> I felt like I was just really being thrown into it (special education) and not given a lot of direction. The only learning I had around it was in my admin classes that were really not practical…studying law and studying theory.

Erin continued to share and stated:

> I mean this job (special education) could be at part-time for me here at this school. I had to hire and now teach the SDC when the teacher is late or doesn't show up. It's a hard class for a sub to walk into, and even if we got one, I'd have to be in there anyway. I guess the benefit for me is that I have learned a lot about special education. Unfortunately from a model that is dysfunctional.

In Question 6, Erin increased her ranking from a baseline of 2 up to 5 at the post intervention level. Erin commented that after the 10-week intervention *PULSE* cycle, she had a broader picture about the complex aspects of a special education program, besides the instructional piece (i.e., use of the instructional aide, student transitions, access to general education, etc.).

For Question 8, Erin shared that her continued presence in the SDC room, has helped demystify some parts of special education for her. Erin's ranking at the pre-intervention level for *identifying good practices* moved up two levels from 2 to 4. Erin shared she came to understand more about special education, however she was cautious about her depth of knowledge particularly quality practices. Erin reflected:

> I've spent a lot of time in the SDC since it's been so chaotic this year so I kind of know what's needed for a basic program. But I just can't do it with the time I have to figure out what quality would look like.

Teacher Ratings of Principal Erin for Technical Competence

Erin's two special education teachers rated her higher upon the post-intervention review across the three key questions pertaining to *Technical Competence* (Figure 4.10). Both teachers expressed a positive change for Erin in particular to Question 2 addressing *knowledge of special education*. The RSP teacher shared that Erin's willingness to be in the trenches and take on the SDC program really showed a commitment as principal and her learning about special education. The RSP teacher shared:

> I am a skeptic. I've had a lot of principals and no one really wants to deal with special education. Erin got here, figured some things out and wants our kids to do better and just takes it on. I hope she lasts here and doesn't burn out.

Figure 4.10: Focus Area Technical Competence as rated by Erin's Teachers (Pre/Post)

Principal Technical Competence as rated by Erin's Teachers
(n=2)

Legend:
- Teacher 1 (RSP): Pre-PULSE
- Teacher 1 (RSP): Post-PULSE
- Teacher 2 (SDC): Pre-PULSE
- Teacher 2 (SDC): Post-PULSE

Y-axis: 1 - 5 Ranking of Extent (0 to 5)

Categories: Question 2: Have Adequate Knowledge; Question 6: Provide Helpful Feedback; Question 8: Identify Good Practices
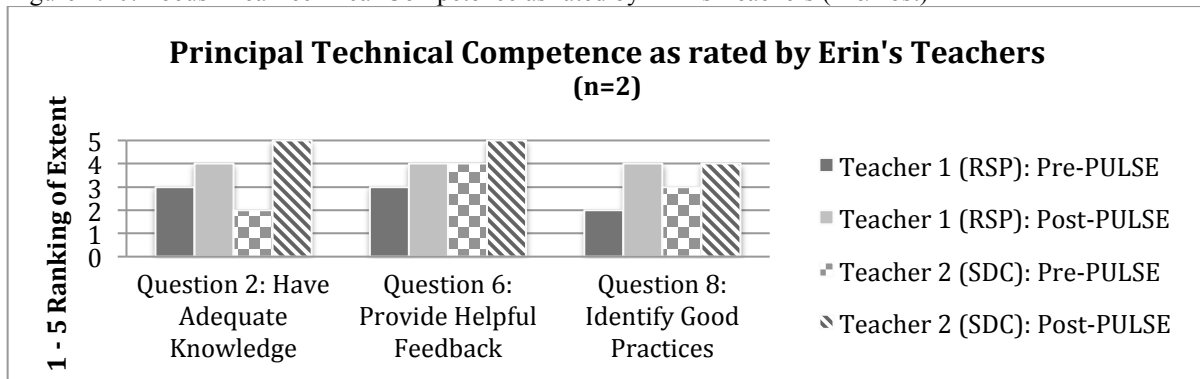
For Question 6, the less experienced Teacher 2 (SDC) shared that Erin has been really helpful getting her class up and running. As the SDC teacher stated, "She hired me and it's been really difficult but she's been a lot of help." When asked upon follow up what help Erin has provided, the SDC teacher replied:

> I have kids with very low level skills and Erin helped me identify reading levels and how to group students. I still don't have a lot of materials. I meet with her regularly to review lesson plans and get feedback. It's something I really need.

For Question 8, both teachers showed a positive rating at the *some extent* level regarding Erin ability to identify good special education practices. As the more experienced RSP teacher stated about Erin's principal style, she indicated:

> She (Erin) keeps us on track and on task in meetings. She gets us to think about what's needed for our students to show progress. I have never had such a good idea person for a principal. She is very engaged with all of us.

Principal James' Self-Rating for Technical Competence

For James' ratings across the *Technical Competence* area, all three questions were rated in a similar manner for pre and post intervention (Figure 4.11).

Figure 4.11: Focus Area Technical Competence for Principal James' Self-Rating (Pre/Post)

Principal Technical Competence: Principal James (self-rating)

Y-axis: 1 - 5 Ranking of Extent (0 to 5)

Legend:
- Pre-PULSE
- Post-PULSE

Categories: Question 2: Have Adequate Knowledge; Question 6: Provide Helpful Feedback; Question 8: Identify Good Practices
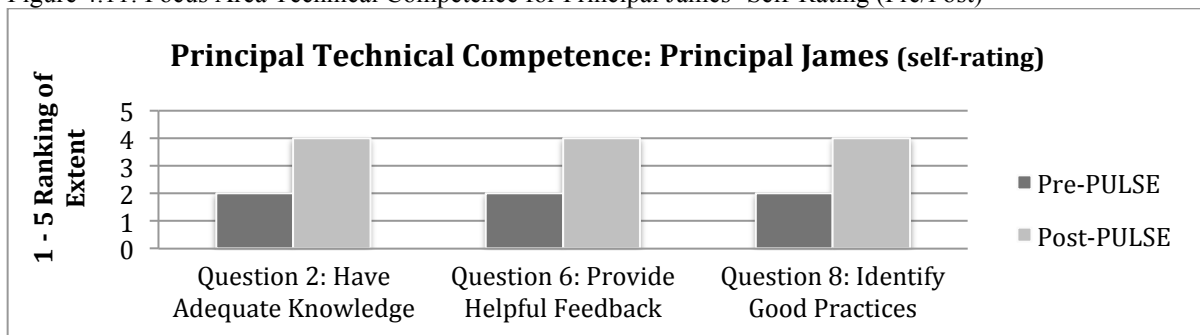
James' own ratings showed a low level of positive behavior in regards to knowledge, feedback, and practices in special education. Upon the post intervention experience and follow

up survey, all three questions were answered in a positive manner with a ranking of 4, suggesting for James, there was a positive change in behavior regarding knowledge about special education, in providing helpful feedback to teachers, and ability to identify good special education practices. Upon the post intervention survey, James was asked to provide an example of what he learned that helped change the way he ranked his pre *PULSE* responses to the post *PULSE* response about himself. James stated that he felt more assured about himself and that meeting for the *PULSE* sessions was helpful: "This (*PULSE*) has been helpful and I need a lot more." In terms of his ongoing support, James shared his hopes for his district plan. James stated:

> It is my hope that we would meet as a management team. Have monthly meetings with the special ed director…she meets with the psychologists but the principals aren't in on that. They need to remember to 'baby' new administrators… it's very overwhelming.

Teacher Rating of Principal James for Technical Competence

The teacher perception of James' pre and post intervention were all rated high upon post intervention (Figure 4.12) in the area of *Technical Competence*. One noteworthy difference was in the data analysis with Question 2. The significant difference from a baseline ranking of 2 up to a post intervention ranking of 4 suggests a strong behavioral learning curve in the positive direction for James based on the perception from the special education teacher.

Figure 4.12: Focus Area Technical Competence as rated by James' Teacher (Pre/Post)
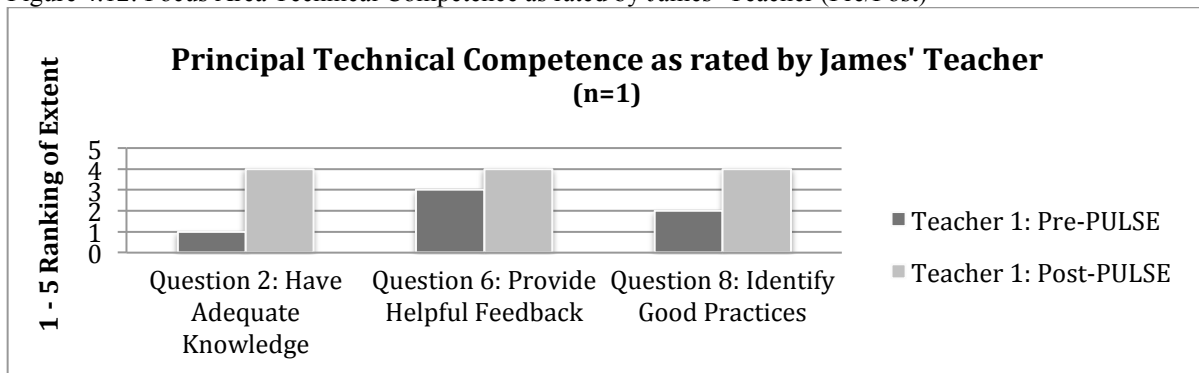
The teacher initially ranked James at the *limited extent* level and then moved to the *some extent* level at the post-intervention 10-week follow-up. During the post *PULSE* interview, the special education shared her rationale for the change in perception. The RSP Teacher stated:

> Really, James could only go up in terms of his knowledge about special education. He told me when he first got here that he knew nothing about special ed. He said he was going to rely on me. Which I think he does do… I think he's trying.

According to the findings for James in this area, the increase across the three target behavioral areas (Question 2, 6, and 8) suggests a positive change towards more enhanced leadership in the *technical competence* area than from before the initiation of the *PULSE* intervention workshop.

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In the next section, I review the *PULSE* intervention process data that will include additional data analysis pertaining to the degree to which Erin and James met each *PULSE* workshop intervention session learning objective. I will also review and summarize the overall findings from both impact and process data to determine the extent to which the 10-week *PULSE* intervention workshop process can be attributed to the change in impact data findings for Erin and James. Additionally, I will provide evidence to substantiate these findings.

Section 2: Process Data Analysis

The story of the process data set forth below explains how Erin and James were lead through a sequence of carefully planned and logically executed activities by way of a researched-based professional development series intended to enhance their leadership skills in special education. As reviewed and analyzed in the prior section (refer to Figures 4.15 - 4.20), Section 1 impact data suggests that indeed Erin and James did move towards more positive behaviors regarding the target focus areas in this study; increased confidence with special education leadership ability, understanding the unique place special education holds within a school, and increased technical skills and knowledge about special education.

In this section, I will review the five workshop sessions that took place over a period of ten weeks and linked the activities and experiences for which Erin and James participated, back to the workshop learning objectives. The proceeding analysis is organized in a similar manner to the impact data analysis—through the lens of each target focus area addressing principal *efficacy*, *cultural proficiency* about special education, and *technical competence*. I present evidence through direct examples and low inference associations from the process data referencing the learning objectives in the area *efficacy, cultural proficiency*, and *technical competence* for the principals.

There were five sessions executed for the *PULSE* workshop series and each session was estimated to take two hours. The *PULSE* sessions were sequenced across a 10-week intervention cycle whereby I initially established a baseline of behavior through a nine question structured interview (see Appendix A). At the end of the intervention cycle of 10 weeks, the same structured interview was re-administered to all participants, including the special education teachers, to determine impact and level of behavioral change on the principal's part in relation to the target focus areas of instructional leadership. Each workshop session had a detailed agenda and learning objectives strategically aligned to specific activities designed to address the acquisition or enhancement of skills across three leadership target focus areas of this study (See Figures 2.3-2.7).

PULSE Session 1: Process Data Review

Learning Objectives for PULSE Session 1

The primary learning objectives for *PULSE* Session 1 focused on aspects of *principal efficacy*. I needed to provide the principals with a forum to explore and reflect upon their own beliefs, attitudes, and dispositions about special education. Learning objectives for the first session were directly tied to addressing principal efficacy with the first goal focused on examining one's own beliefs, attitudes, and disposition regarding special education. The second objective focused on understanding research-based behaviors for leading effective special education programs.

Implementation – What Occurred in PULSE Session 1

During the initial session, I reviewed the purpose of the dissertation research study and the format of the *PULSE* professional development workshop sequence so that the principals were informed about the process, theory of change and intervention and my intent as the researcher. I explained that the various activities aimed at addressing specific principal leadership behavior would involve: (1) interpreting, reviewing, and analyzing research articles, (2) learning about new protocols or tools, and (3) discussing vignettes related to special education practices. I also shared with them that as we progressed over the ten weeks, I would be seeking their feedback about the workshops sessions to gauge the extent the intervention content was useful to their learning process and addressed the session goals. Additionally, I reviewed the function and purpose of my role as the researcher, the role of each principal, and the role of the three respective special education teachers.

Once the overview of the *PULSE* workshop series was completed, I provided each principal with a resource binder containing the materials we would use for all *PULSE* workshop sessions with my expectation that they would be referencing the materials over 10 week intervention period (e.g., research articles, books, protocols, handouts, fact sheets, and guides). As a precursor to facilitating the activities for *PULSE* Session 1, I had the principals read two research articles (see Figure 2.3) introducing the foundational elements of principal efficacy. These broad concepts included understanding essential beliefs, attitudes, and dispositions that can affect principal practice as well as specific behaviors related to positive special education leadership.

During our first activity, I offered the opportunity for Erin and James to debrief regarding their experience with the structured interview questions because I wanted to understand their initial impressions about focusing on special education leadership. I reminded them that I would be completing a similar post interview structured survey with them once the 10-week intervention cycle had been completed.

When I asked the principals to share their thoughts about the questions asked of them during the structured interview (See Appendix A), both Erin and James were in agreement that the questions were relevant to leadership and special education. However, James commented that it was difficult not knowing all the *right* answers. I responded to James' statement by emphasizing that the learning process they were about to embark on was not about knowing all the answers but rather to help them as new principals understand key concepts pertaining to special education as well as learn about important practices and resources that can enhance their leadership for special education.

For the next activity and prior to *PULSE* Session 1, I had the principals read two research articles (see Figure 2.3) introducing the foundational elements of principal efficacy. These broad concepts included understanding essential beliefs, attitudes, and dispositions that can affect principal practice as well as specific behaviors related to positive special education leadership. The primary teaching method utilized during Session 1 involved analyzing and summarizing the research articles and then identifying key points through a charting activity. Both principals were asked to each reflect on the articles and referenced a number of central concepts that included, for example: (1) the school principal is responsible for education of all students in their school, (2) expectation that all teachers can instruct a wide range of students, (3) all students are important and part of the school community, and (4) the principal should take on an instructional leadership role within the school.

Once the primary concepts were drawn out from each article and noted in outline form by the principals, I allowed the principals to engage in open dialogue about the ideas that resonated for them in the articles. Erin stated numerous times that the concepts from the articles should be basic to administrator training programs. James stated how the information and material we were covering were new to him. Statements made by Erin about the preparation for new administrators prompted James to discuss how he was hoping to receive additional leadership training in his Tier II administrative program in the next year or two.

I then facilitated further discussion about the articles with prompts to elicit feedback from the principals regarding various key points I wanted them to address. Through the use of note taking, I captured the principals' reflections on a vertical chart because I wanted them to consider each prompt in regards to their current practice as principals leading special education in their schools. In one example, I asked Erin and James to share their own belief regarding the statement found in the Goor et al. (1997), article concerning the belief that "all teachers can instruct a wide range of students." James responded and shared a number of impressions about the concepts and reflected that he had mixed feelings about such a belief for *all* teachers. In his response he revealed he wasn't certain he could actually *enforce* such a standard on his teachers. Erin indicated that she didn't have a problem expecting such an inclusive standard from her teachers. The open dialogue continued for about 10 minutes and then I directed the two principals back to the session agenda so we could transition to our next activity.

Since we had already summarized and identified key concepts from the articles, I introduced the next phase in our learning process. For this step, the principals would be expected to apply the various core concepts identified in their summary activity to a number of vignettes related to special education leadership. In total I presented four vignettes that were crafted from realistic scenarios of which the principals would need to contend. An example of one vignette included a description of a principal working in a school that was operating a model of inclusion in its delivery of special education services—meaning special education services were to be provided within the child's regular classroom rather than in a separate classroom.

The purpose of the vignettes from the researcher's perspective was to help me understand the extent to which the principals recognized how their own beliefs and dispositions affect their leadership behavior in the area of special education as well as how to apply new behaviors to enhance their leadership behavior. Throughout Session 1, I noted and captured candid feedback from each principal as they worked through each vignette. I carefully considered the various key concepts they culled from the articles, and how they applied these concepts as a lens to problem-solve each dilemma faced by the school administrator.

Erin volunteered to take on the principal role in the first vignette. In this scenario, the principal was contending with the role as a new principal overseeing the recent implementation of an inclusion service delivery model within her school. I asked Erin to identify key factors or issues presented as problematic in this vignette. Erin identified two primary issues: (1) the level of acceptance by the staff and larger school community about the new inclusion model, and (2) the shift in need for strong collaboration and communication between the regular education and special education teachers with this new model.

Erin approached the problematic issues by first stating her belief that the model of inclusion was the right decision for serving students with disabilities. Then she identified several steps she could take as principal to address the implementation of the new inclusion model with her staff and larger community. Erin specifically referenced the DiPaola et al. (2004) article citing that as principal she is the steward of the process for developing an inclusive school

culture. As the session proceeded, for each vignette, Erin worked through the presenting situation and generated a number of potential outcomes for the principal to follow.

In the second vignette, James took on the role as a new principal faced with the problematic issue of a struggling new special education teacher and an increasingly impatient 2nd grade teacher who were at odds with one another over supporting a student. I began by outlining the vignette for James. He immediately responded by re-stating that special education was new for him and he wasn't sure how to appropriately respond. James also stated that he realized the stakes were high in this scenario since the conflict between the two teachers may have a negative impact on the student. When I inquired about referencing the practices and concepts that we had identified earlier in the session, James outlined his plan of action for me that included initially talking with both teachers and then asking the general education teacher to be patient with the special education teacher as she learned her new job.

As our first session came to a close, I acknowledged the work we accomplished over the course of the session and asked Erin and James to share their initial impressions about the material. Erin shared how she was able to connect to the research articles and how they made sense to her as an educational leader. James re-stated he needed to grow professionally in the area of special education.

Throughout this session, my role as the researcher was to gauge the extent to which the material and my facilitation skills were able to shed light on aspects of the principals' beliefs and disposition in regards to their special education leadership. When applicable, I noted evidence of learning from the principals' responses that could then be used to evaluate the degree to which the principals met the goals of the session.

Analysis for PULSE Session 1

The analysis for *Pulse* Session 1 entailed a detailed review of my researcher observational notes which were then contrasted with the direct feedback data the principals provided during the session regarding the concepts covered. To assist with summarizing the process data and to determine the extent to which the learning objectives were met or not, I employed the use of a calibrated scale to gauge principal success level: *1 = Not met; 2 = Partially met; 3 = Yes met.* Given that for Session 1 and forthcoming sessions I would be using a variety of teaching methods to convey material, the calibrated scale seemed like a useful and consistent tool to utilize for each *PULSE* session. A review of the session summaries and my observational notes along with direct statements from the principals allowed me to substantiate the claim of either meeting the learning objective, partially meeting or not meeting the learning objective on the calibrated scale.

As indicated and summarized in Figure 4.13, process data analysis for Session 1 revealed that Erin was successful in meeting both learning objectives while James met neither. On several occasions, Erin voiced agreement about the essential elements pertaining to efficacy and positive leadership behaviors cited in the articles that she could identify with as a principal (i.e., promoting inclusive schools, building collaborative relationships across grades and departments.) At one point Erin stated the need to include such material in basic administrator training programs. Erin shared:

>I can see the use for this material…like these articles in my Tier 1 program. This information would have been helpful to me when I was in the program. Everyone comes

into administration from a different background… this information is great for grounding us and getting on the same page about special education.

During the analysis and summary activity of the two articles, Erin stated that she identified with the research and was particularly aligned with the essential belief that the principal is responsible for the learning of all students in their school. Erin further explained that the principal is the true steward for the school. She stated:

> For principals, this material is especially relevant since we set the tone and expectation for teachers and we have to keep them on message…we are all responsible for every student, every day.

Erin told me she was comfortable with the material and how to apply this information to the vignettes she was assigned. She stated in a comment that the teaching methodology used in Session 1 was very helpful in providing an opportunity to discuss and then "play with the material through the vignettes."

When I reviewed my notes for James, James commented on the fact that the practices he reviewed were unfamiliar, particularly the material and vignettes about progressive educational practices like inclusion. In response to one vignette about special education inclusion practices, James stated:

> I don't know if I see that (inclusion) as realistic…I know all teachers should be able to teach all students but that's just not going to happen. Shouldn't we just have students with teachers who can handle them? That might just sound like I'm giving in but why subject the student to that teacher who may not be able to handle them?

In another vignette where a principal is faced with a problematic issue regarding two teachers who are at odds with one another over supporting a student, James shared that this vignette could be something he potentially will have to face at his school someday. As James problem-solved the dilemma of the vignette, he stated:

> Now this one is challenging. I am not sure how to respond exactly without siding with one of the teachers. I know something has to change, but I do not know how to give advice for the whole situation. It's a matter of time before that teacher comes to me to complain about both the special ed kid and the special ed teacher.

Upon further analysis of the dialogue shared during this vignette, James articulated a plan whereby he would have both teachers talk to each other about the issue but again said he did not feel confident providing useful information or strategies. He stated:

> In reality, I don't know what I would really say… I wouldn't want to give the teacher wrong information but I really couldn't steer her in the right direction either. They (the teachers) won't be happy with what I decide anyway.

In the end, as a solution, James shared that he would ask the general education teacher to be more patient with the inexperienced special education teacher while she learns the functions of her job.

In regards to James and how he responded over all to the content and activities of Session 1, he struggled with the concepts that were in contradiction to his beliefs and was unable to apply the material presented to the problematic vignettes. While James was very candid about his lack of experience in dealing with special education problems, his responses regarding leadership practices and his own leadership skills heightened his awareness about what he did not know regarding special education leadership.

Figure 4.13: *PULSE* **Session 1 Principal Efficacy Learning Objectives**

Principal Efficacy	Principal Erin		Principal James	
PULSE **Learning Objectives:** 1 = Not met; 2 = Somewhat met; 3 = Yes met	**Was objective met?**	**Evidence for meeting objective**	**Was Objective met?**	**Evidence for meeting objective**
1. Understand beliefs, attitude, assumptions about students with disabilities and special education	Yes met	Met goal because she was able to apply the learning material from the article. Expressed confidence with material and applied practices she could use or might use in the future when working through the vignettes	Not met	Numerous times voiced uncertainty about content: "This is new for me" or "I have never done this before."
2. Understand researched-based behaviors focused on instructional leadership in special education	Yes met		Not met	

PULSE Session 2: Process Data Review

<u>*Learning Objectives for PULSE Session 2*</u>

The objectives for *PULSE* Session 2 addressed the construct defined as *cultural proficiency* for special education. For *PULSE*, *cultural proficiency* centers on the need for principals to examine, understand, and take into account the cultural uniqueness of special education and how it resides within the larger general education setting. The learning theory behind this construct contends that once principals acquire this *cultural proficiency* about special education, they will be more understanding about student needs, sensitive to teachers' unique role and their needs and open to cultivating positive relationships with special education teachers. Specifically, principals are asked to consider and understand that special education in-and-of-itself differs culturally from the general education program. For example, principals should be cognizant of various non-traditional qualities about special education personnel such as their unique preparation, hiring, retention, and supervisory requirements along with professional development needs. One activity focused on principals being able to identify similarities and differences between general education and special education and noting defining features. Another goal area examined the organization and design of the special education classroom, specifically with an overview of the *PULSE* Classroom Tour Guide designed as a tool for principals to learn about the unique features of the special education classroom, its operation, and design.

In *PULSE* Session 2, I introduced the concept focused on the acquisition of *cultural proficiency* about special education. The learning material for this session included reflecting on content from research articles from both Session 1 and Session 2 (Figure 2.3 & 2.4). In preparation for Session 2, the principals read two articles during the two-week period between sessions. For our first activity, the principals began an activity where they identified similarities and differences between general education and special education based on the information referenced from the articles. I captured principal feedback through a charting process on a white board. Erin and James developed the categories together after brief moments of discussion regarding the area or function within the general and special education system. The principals articulated similarities and differences by clustering comments into overarching categories based on function or area within the larger education system. A summary of the charting process can be found in the figure below (Figure 4.14).

Figure 4.14: *PULSE* Session 2 Similarities and Differences Between General Education and Special Education

Function or Area	General Education	Special Education
Teacher credentialing and preparation requirements	Single or multiple subject credential required	Additional course-work and authorization for Education Specialist Credential; may possess dual degree of single or multiple subject or pass subject matter competence exam
Laws, compliance, regulations, policies	CDE Education Code Regulations;	CDE Education Code Regulations & IDEA 2004 Regulations; Major difference related to: IEP documents, timelines, discipline, assessments.
Frameworks and Standards; Instructional methods/practices and support within school	Frameworks, standards; Curriculum guides are used as road map for grade level progress; Focus on whole or large group instruction; May consider individual needs to extent does not detract from larger group learning process; Must address behavior in general; Option of referral to special education for student support	Use of frameworks and standards, curriculum guides used as road map for grade level progress; Individual Education Plan (IEP) is the specific roadmap that focuses on individual student needs; Consider small cluster groups when able to differentiate; specific behavioral supports targeted at identified needs; Once a student is found eligible for special education, there may be less "ownership" from general education of the student's learning.
Funding stream and mechanisms	Federal, State, local tax funding	Federal, state, local funding; Supplemental categorical Fed/State; underfunded mandate, may include substantial general fund contribution referred to as encroachment
Supervisory, Evaluation, & Professional Development needs	Principal is supervisor and authorized to evaluate all teachers and may do so in similar manner; Provides Core Academic PD to all staff.	Often does not have knowledgeable supervisor on site for supervision and evaluation practices; PD needs may include general education curriculum training as well as more specialized or unique training
Vocabulary and Language	Universal set of vocabulary and language across school setting	Universal set as well as special education specific, i.e., unique acronyms and terms used for special education (Appendix E).

As I facilitated the discussion, Erin and James further noted how areas differed for general and special education. Working together, they created cluster areas that addressed: (1)

teacher credential and preparation requirements, (2) laws, policies, and regulations, (3) frameworks and standards, (4) funding mechanisms, (5) supervisory, evaluation, and professional development needs of teachers, and (6) vocabulary and language used within context of education.

Once the principals completed the clustering process, I inquired about implications for such differences in order to elicit more detailed connections about their learning and the material presented. During this activity, James referenced how the research articles resonated for him as a principal. Specifically, James cited unique teacher supervision needs and consideration of alternative professional development support for special education teachers.

Erin stated that she recognized the similarities and differences activity as two parallel processes with complicated overlapping areas. She shared that different timelines and student discipline procedures between the two groups as something that potentially could be problematic in practice when not understood or adhered to by principals.

Once we completed our charting activity and reviewed implications for practice, I transitioned to our next activity that involved a set of realistic vignettes. Each vignette was designed to provide an opportunity for each principal to further apply their knowledge and understanding about *cultural proficiency* for special education to problematic scenarios. In addition, the principals' use and application of the session content through the vignette was intended to provide another data point to help me evaluate the extent to which session goals were met.

Through the vignettes, the principals responded to the realistic scenarios with possible solutions to problems brought forth. One particular vignette described a school with an inexperienced special education teacher who was struggling with her classroom. The particular challenge centered on a familiar dilemma faced by principals—how to help a struggling teacher improve with their practice while maintaining that teacher in the classroom and ensuring that student learning occurs. Erin identified with this challenge immediately and noted how similar it was to her current issue with a new SDC teacher. Erin incorporated references and information from the articles into the problematic scene that included ensuring dedicated personal coaching time from her as the principal, requesting specific mentors skilled in special education classroom management, and encouraging the use of continued learning opportunities for this particular teacher.

In another scenario, James was presented with a vignette concerning high teacher attrition in his school's special education program. In this scenario, the principal was struggling with almost-yearly teacher attrition of two special education teachers. When asked how he would address the challenge in this vignette, James reflected and said first he would want to know why the teachers felt it necessary to leave special education. In asking such a question, James said he would like to understand what he could do, as the principal, to support the new teachers. In addition, James expressed that although he has not had to hire a special education teacher, he understood that the shortage of teachers poses a real issue for many principals. At another point in the session, James related to issues from the research articles pertaining to the propensity of special education teachers to experience isolation within their school. James said once he understood factors concerning teacher isolation as a real problem, he could conceive it as an issue for his current school and his lone special education position, and voiced support for considering moving the RSP classroom closer into the central part of the school building.

Once we completed the vignette activities for Session 2, we transitioned to another activity where I introduced the *PULSE* Special Education Classroom Tour Guide (Appendix D).

This guide was created to provide principals with a tool to help inform their supervision and deepen their understanding about special education classroom organization and design. The guide contained a series of items identified as *Things to Notice* and *Things to Inquire About*. I reviewed the guide, explained the rationale, and walked through the classroom tour process together with Erin and James. I also set the expectation for James and Erin that they were to use the guide within the next two weeks. The plan was to discuss their feedback about the guide at our Session 3 meeting. James shared he could see using the *PULSE* Classroom Tour Guide to learn more about the set up of the RSP classroom in his school and to help understand the learning needs of the students served in the program. Erin added that although she has two distinctly different classroom arrangements, the guide could help her "get behind the scenes" of the RSP room where she is less familiar with the program design.

Analysis for PULSE Session 2

In my analysis for Session 2, I provide evidence to justify my findings, and determine the extent to which Erin and James met the learning objectives for the session. Similar to Session 1, I used a similar method to determine the degree by which Erin and James met each lesson objective. After reviewing my notes, the data suggests that Erin and James met each of the four learning objectives. On several occasions during the session activities, both Erin and James referenced the learning material as revealed through direct observation and specific statements or quotes.

During the initial activity, Erin and James were asked to consider and categorize the similarities and differences between special education and general education. James indicated the research was helpful as he reflected on the unique professional development requirements of special educators as well as their supervisory needs. Additionally, he recognized that professional development needs was another area to pay attention to in his practice as a principal. James said:

> I never really thought about the unique PD (professional development) needs for a special ed teachers. It makes sense though. They might even need to double up on training so they get regular PD as well as special ed PD. I know that's asking for a lot….You know double the work.

Erin voiced how issues related to compliance and legal procedures can be potentially problematic when staff or administrators are uninformed and ignore procedures regarding special education. Erin stated:

> Last year I didn't get the urgency in knowing what important differences there were for me to understand. I depended on my staff. Now I get it. It's all on me. It can be a problem if you don't recognize these things when you're a principal.

During the one vignette activity, Erin offered several solutions that she referenced from the research articles. Erin cited strategies pertaining to teacher support and accessing additional special education-specific instructional support in an effort to help the struggling teacher. Erin also commented on how similar this scenario was to a current challenge she is experiencing with a new teacher. Erin shared:

This is a challenge. I have to be in my SDC every day helping…really I'm teaching. I'm trying to come up with ways to support her. I like the idea of a special ed mentor or providing different trainings.

During another vignette activity, James reflected on the fact that he is fortunate not to have to deal with the problematic issues related to special education teacher attrition. James offered several solution-oriented strategies he recalled from the articles as means to address the problematic features presented in the scenario. James' first strategy addressed the needs of new special education teachers directly by inquiring why the prior teachers decided to leave and what he could do differently to support them during the first year of the job. James stated, "I guess the first thing I'd want to do is try to figure out what went wrong and why they left. It's worth checking-out." James continued on to say how he recognized teacher isolation as a factor for why special education teachers sometimes leave the profession and shared:

I know my sped teacher is pretty experienced but I also now get it about the issue of isolation for a teacher. I can relate to that as a new principal. I could consider moving her (the special education teacher) classroom closer to my office and the central part of the school. I admit it. It's a pain to go out there.

When I probed with a follow up question, James shared that it was an idea he thought of during *PULSE* for moving his RSP classroom closer into the main part of the school. James went on to state he saw it as "an effort to be more deliberate and inclusive of special education."

For the next activity, I provided an overview and explanation regarding the *PULSE* Special Education Classroom Tour Guide (see Appendix C). It was my intent to take notice of what Erin and James had to reflect and say about the guide. Erin and James both offered positive impressions about the *PULSE* Classroom Tour Guide. James was the first to comment and stated, "I could see using it as a useful guide to learn more about the RSP classroom and students in the school."

In a similar manner, Erin's perspective on the use of the protocol was much in line with my intent and objective of the tool. She shared:

Although I have two distinctly different special ed classrooms, the guide could help me get behind the scenes of the RSP room where I am less familiar with the design of the program. I mean I think I understand what's supposed to happen in the resource room but a detailed guide would be helpful.

Overall, all four lesson objectives for Session 2 were met with strong indicators of success by the principals as identified through my observations, their direct feedback, and their application of the lesson content. Figure 4.15 is a summary of the lesson objectives for Session 2 and the evidence I captured during the activities to determine the degree or extent to which the objective was met.

Generally speaking Erin and James were able to identify numerous similarities and differences between general education and special education programs. They identified six primary areas of difference across the general and special education spectrum. Erin stated that the six areas identified, contained numerous complex factors when implemented under the

auspices of special education. James shared how he was struck by the fact that he had not really understood the array of unique differences until they created the visual chart and that there were so many.

All in all, the principals responded to realistic vignettes in a problem-solving manner. James acknowledged issues related to potential isolation factors for the lone special education teacher within his own school revealing an understanding about this important supervisory role. James found the *PULSE* content addressing collaboration and supervision for special education teachers as "good to know information" as he stated in recognition of the importance of such information.

When I reviewed my notes for Erin, the data revealed that she considered numerous strategies and measures in her vignette to ensure that her "new" teacher received necessary support. In fact, Erin identified with this scenario by noting how similar it was to her current issue with a new SDC teacher. Erin stated, "Yeah, been there…done that."

Figure 4.15: *PULSE* **Session 2 Principal Cultural Proficiency Learning Objectives**

Cultural Proficiency for Special Education	Principal Erin		Principal James	
PULSE Learning Objectives: 1 = Not met; 2 = Partially met; 3 = Yes met	Was objective met?	Evidence for meeting objective	Was objective met?	Evidence for meeting objective
1. Learn concept of cultural proficiency for special education	Yes met	Identified and defined numerous differences and similarities between general and special education	Yes met	Identified and defined differences and similarities between general and special education
2. Understand the unique role and experience of the special education teacher within the larger school setting	Yes met	Referenced research articles regarding unique needs for special education teachers during vignette	Yes met	Cited importance of considering isolation of the special education teacher in his school; Provided claim during vignette that needs to understand attrition issue from teacher perspective
3. Understand important aspects about the special education classroom organization and design	Yes met	Described tour guide as tool to "get behind the scenes" of the special education classroom; Stated intention to use	Yes met	Reflected on anticipated use of tour protocol as "helpful guide" to understanding more about the special education programs; stated intention to use
4. Understand and use the *PULSE* Classroom Tour Guide created for use in special education classrooms	Yes met		Yes met	

PULSE Session 3 introduced the construct *technical competence* for special education. *Technical competence* for special education centers around the construct that once principals understand a foundational baseline of information and learn a variety of skills, they will be better prepared to provide substantive and valued feedback to special education teachers and be able to utilize appropriate resources to help lead special education in their schools. Session activities focused on acquiring information and knowledge about special education and identifying quality classroom practices. The learning objectives for Session 3 were intended to: (1) inform and instruct principals in identifying quality factors and quality practices specific to special education classroom and teaching; (2) assist principals in understanding the importance and need for visits/observations to special education classrooms; and (3) review and learn how to use the *PULSE* Classroom Observational Protocol (see Appendix D).

The *PULSE* Classroom Observational Protocol was created for principals to use to identify key practices to observe in teachers when visiting classrooms, such as: behavioral supports/routine, positive classroom climate, level of instruction, level of student engagement, student access to core instructional material, and use of adult supports. In addition, there was a place to note and capture learner conversation occurring in the classroom (i.e., *what was the teacher saying/doing* or *what were students saying/doing*).

Implementation – What Occurred in PULSE Session 3

For *PULSE* Session 3, we began by reviewing the principals' experiences using the *PULSE* Special Education Classroom Tour Guide that was introduced in Session 2. The *PULSE* Special Education Classroom Tour Guide was created to help principals examine the unique differences or *cultural* features typically found in special education classrooms as well as enhance their understanding about special education. This guide also acted as a bridge between the constructs of *cultural proficiency* and *technical competence* as the foundational elements were intended to both inform the principals on understanding the unique aspects about a special education classrooms (*cultural*) but also act as a tool to help direct and inform their visits to special education classrooms (*technical*).

During the two-week period between Session 2 and Session 3, the principals agreed to use the *PULSE* Special Education Classroom Tour Guide in their special education classrooms. I noted the principal feedback regarding this instrument and the impressions they shared on the guide's usefulness and practicality.

James highlighted how the *PULSE* Classroom Tour Guide provided structure for him to engage in dialogue with the special education teacher during a recent classroom visit. James also acknowledged the usefulness of the tour guide as a tool to help him probe deeper into the structure and routine of the special education classroom. He stated it did help him gain a more comprehensive understanding of what the operation and design of a quality special education classroom should contain.

Erin shared that some of the *take notice* and *inquiry* items on the *PULSE* Classroom Tour Guide prompted her to ask specific questions about the classroom. She cited the importance of grade level curriculum texts and how they were absent, individual student behavior management

system that was unique for each student, and frequency of parent communication, as items that she had not considered in the past.

In the end, I acknowledged their feedback and both James and Erin said in agreement that the *PULSE* Special Education Classroom Tour Guide was practical once they became familiar with the items. They further shared that it allowed them to understand the unique design and structure of a special education classroom.

In the second activity, we focused on the *PULSE* Classroom Observational Protocol (see Appendix D) different from the *PULSE* Classroom Tour Guide (Appendix C), which provided an overview of the organization and structure of the special education room. The *PULSE* Classroom Observation Protocol (Appendix D) was intended to deepen principal understanding about the functioning of the special education classroom while also providing a structure to capture helpful feedback about student learning to share with a teacher during a debrief. The classroom observation protocol identified a number of quality practices, specific to a special education classroom, to observe during a visit.

In preparation for introducing the *PULSE* Classroom Observation Protocol, I explained that we would be watching two video segments focused on a reading activity in a special education classroom. During the first video sequence, I had the principals take notes in a format they typically used for a classroom observation in order to compare their method for collecting evidence with the *PULSE* Classroom Observation Protocol. I asked both James and Erin to share their informal notes and method for capturing information. For example, when I reviewed their notes, James included brief statements of 3-5 words in a time-referenced manner (i.e., minute 3,5,10). Erin created a two-column matrix noting time in two-minute intervals and citing examples of students working with adults in the classroom. Erin's note taking included some details as she captured specific phrases stated by the teacher or students from the video (i.e., "nice job, stay focused, try that again").

Next, I inquired about their purpose for using these notes and what would they plan to do with them once the visit was completed. Both principals stated that, at some point, they would follow-up with the teacher if there were any concerns and they would reference their notes. Erin indicated that at the end of each observation, she typically leaves a comment card for the teacher and might also have a brief conversation with the teacher. James shared most of the time he would touch base with the teacher at some later point to review the visit.

Once we completed reviewing their notes, I had Erin and James place their informal notes aside so I could move onto a detailed review the *PULSE* Classroom Observation Protocol. I explained that the Classroom Observation Protocol was designed for principals to identify, record, and capture observational data and impressions during an informal classroom visit. I reviewed the features of the observation protocol and provided examples of how it should be used in anticipation of watching and observing another video segment of a special education classroom. I stated that the observation tool was made up of a number of quality practices areas. I wanted the principals to look for such practices as they referenced the observation protocol during the video practice as preparation for use in their respective special education classroom.

As I reviewed the first page of the *PULSE* Classroom Observation Protocol, James and Erin immediately expressed apprehension about the level of detail that needed to be captured during an observation. While Erin and James acknowledged the importance of visiting classroom, the both shared that this tool was problematic for purposes of an informal classroom visit. Erin shared that the tool reminded her of an evaluation method rather than a classroom visit tool. I listened to their comments and then re-reviewed the observation protocol in an attempt to

convince them that it was not too detailed. At this point, I suggested that they give it a try during the video observation and they agreed.

During the 15-minute video segment focused on another special education reading group, I observed that both James and Erin were struggling with the observation protocol and frequently checking and reviewing the numerous categories listed (i.e., use of instructional feedback to the students, reinforcements for on-task behavior, listening intently to capture what the teacher and students were saying, etc.). They compared their blank template form with the completed sample *PULSE* Observation Protocol form (Appendix D) however they expressed concerns about missing the actual lesson as they attempted to capture details and provide feedback in the appropriate category on the protocol. Once the video sequence was completed, James voiced concern that there was not enough happening in the video to complete the specific details within the protocol. Erin also expressed frustration that the tool did not seem very practical to use for informal visits and re-stated it would be a better evaluation form than an informal observation tool.

Upon my review of their observational protocol notes, I noticed that neither Erin nor James captured much detail or evidence to address each of the specific quality practices outlined in the protocol. Both Erin and James stated that when they visit classrooms, they typically have little time to utilize such a detailed observation form, particularly during an informal visit. I made several attempts to convince them of its informative potential, particularly as means to learn and understand quality practices in a special education classroom. I then suggested that they give it a try during the two-week period before the next session and they both agreed to trial the observation protocol over the next two weeks without any modifications on my part. It was at this time that I suggested we take a break so I could review the next items on our agenda.

Upon further reflection of the principals' feedback about the *PULSE* Classroom Observation Protocol, I decided not to modify the protocol and wanted to test whether or not it could act as a device to enhance principal learning. As the researcher, I was reluctant to inquire with Erin and James about specific changes they could suggest to make the tool useful. I then indiscriminately made the decision to see what would transpire and what additional feedback Erin and James would offer after completing a trial use of the observation protocol.

Analysis for PULSE Session 3

For *PULSE* Session 3, I utilized a similar method used in prior sessions to evaluate the extent to which Erin and James met the lesson goals. Overall and as evidenced in Figure 4.15, that will be described in more detail, Erin and James present with a comparable profile in terms of learning objectives and did not fully meet any of the three goals in this session. The first section of this analysis for Session 3 begins with feedback from the principals on their experience using the *PULSE* Classroom Tour Guide during the two-week period prior to *PULSE* Session 3. This instrument was introduced in Session 2 however it was reviewed and analyzed as part of Session 3, hence its inclusion in this section.

Feedback from both principals regarding the use and practicality of the *PULSE* Classroom Tour Guide and its application in the special education classroom was positive. They each said they could see using it. James highlighted how the tour protocol provided structure for him to engage in dialogue with the special education teacher during the recent classroom visit. Specifically, James said:

The guide gave me an 'in' with the resource teacher. I was better prepared to ask

questions about her program and IEPs and goals for students. The RS (teacher) liked the question about how frequently she monitors student progress and went on for a while telling me about her data system.

During our discussion, when I asked Erin about the classroom tour guide, she shared that she appreciated the *things to inquire about* by stating:

> I noticed textbooks were missing...even though I am familiar with the organization of a resource room for the most part, I found specific items on the guide helpful. Like asking about the grade level core texts. I have to follow-up on this as the principal.

> James acknowledged the usefulness of the tour guide as a tool to help probe deeper into the structure and routine of the special education classroom. James stated:

> I would not have known what questions to ask or specific things to look for. My RSP thought it was great that I had specific questions to ask…like a quiz about the content of that program room. There are common things in all classrooms but more specific for special ed classrooms. It was helpful.

> While the *PULSE C*lassroom Tour Guide provided principals with an overview of the organization and design of a special education room, the *PULSE* Classroom Observation Protocol identified a number of quality practices, specific to special education classrooms. To recall, the *PULSE* Classroom Observation Protocol was intended to act as a tool for principals to understand, capture and then provide meaningful notes and feedback to their teachers when debriefing the classroom visit. Once introduced and then trialed, James and Erin continued to express concern about the level of detail that needed to be captured during the video segment, James shared:

> It looks like I would have to ask the teachers a lot of questions about items like assistive technology or about the standards being addressed…instead of just watching what the teacher was or was not doing. I don't know how I could tell if there were standards being addressed by using this protocol during an observation.

Erin stated:

> If I used this tool, I would have to be in the classroom for literally hours. I would spend my time asking the teachers questions about…'is the material research-based and what system do you use to monitor their progress?' Instead of just observing practices and citing examples that I could capture to provide feedback to the teacher. I think this observation protocol would be real inefficient.

When I asked James to tell me more about the value of the observational protocol, and if he understood the content about quality practices, James offered:

> I know there are a lot of items on here that might make up quality practices, I just don't think the design is very helpful for visits. It has too many boxes and the detail I would

have to provide would make me focus just on the form and not the actual classroom.

As shown in Figure 4.16, James and Erin could not specifically identify quality practices for special education. When I specifically asked Erin to summarize special education practices, Erin stated that she connected with the term quality practices and noted the similarity of good practices used in both general education and special education. However, she only identified practices on a limited level after watching the second video and referenced the classroom protocol minimally. Erin expressed that every class should have strong behavioral routines and positive classroom climates but she could not specifically call out the quality special education practices she observed. When I asked her to share what she had learned about special education classrooms from this activity, Erin offered:

> I could not tell you specific quality practices based on the video. Excellent teaching should be in every classroom… It might take a little 'tweaking' to make it (the teaching) work for special education. I'd have to think about that more.

When I probed with a follow-up question about whether or not she learned new practices or strategies for special education, Erin said she could not evaluate or determine practices such as grade level progress or progress monitoring from watching the video segment. Directly referencing the observation protocol, Erin stated:

> I was so confused about the detailed descriptions listed on the protocol that I wasn't sure what I should be looking for. I couldn't tell you whether or not the teacher in the video adapted or modified the material to meet the students' needs.

When I probed further about whether she could apply this to her own classroom observation of her teachers, Erin shared:

> I would have to disrupt instruction and ask the teacher. I see some value in its use however it didn't seem very practical as an informal tool to capture observations since the format of the protocol was too specific and so detailed.

Next I asked James about the special education signature practices. James cited the fact that there seemed to be many similarities between general and special education when it came to quality practices. When I asked him to distinguish between special education and general education unique practices, James offered as a unique practice that the special education teacher must follow the IEP. James said:

> I understand there are individualized parts about special education but good teaching seems to be the need across all classrooms. It should not be unique to special education. I mean the special ed teacher needs to follow the IEP which should make the teaching unique I guess.

In Session 3, for learning to occur, the intent of the design of this implementation study and theory of change assumed that both Erin and James would be better prepared as instructional leaders if they utilized both the *PULSE Classroom* Tour Guide and the *PULSE* Classroom

Observation Protocol. For my analysis, I reviewed the quality factors identified on the classroom tour guide as well as the quality practices outlined on the observation protocol. My theory of implementation focused on the hypothesis that once instructed on how to use the tools, Erin and James would then be able to identify quality factors and quality practices when visiting classrooms.

A review of the data demonstrates that both Erin and James were successful in using the *PULSE* Classroom Tour Guide for instructing them on understanding the organization and structure of the special education classroom and program. However, a there is no evidence to support that the *PULSE* Classroom Observation Protocol deepened their learning of what it means to implement quality practices. The data reveals limited responses on a surface level.

For *PULSE* Session 3, the theory of implementation was compromised during the introduction and review of the *PULSE* Classroom Observation Protocol due to a lack of proper guidance and explanation by me as well as my reluctance to consider modifying the protocol once I received contrary feedback from the principals about the content and structure. In the end, the principals may have just not understood the intent or my explanation of the observation protocol. This break down in the implementation theory did not allow me the opportunity to guide the participants as they wrestled with the content and structure of the protocol or capture sufficient evidence that the learning objectives were met.

Figure 4.16: *PULSE* Session 3 Principal Technical Competence Learning Objectives

Technical Competence for Special Education	Principal Erin		Principal James	
PULSE Learning Objectives: 1 = Not met; 2 = Partially met; 3 = Yes met	Was Objective met?	Evidence for Erin	Was Objective met?	Evidence for James
1. Identify quality factors and quality practices for special education teachers	**Partially met**	Was successful in identifying quality factors of a classroom and used tour guide; Based on the video segment, Erin was not able to identify quality practices	**Partially met**	Identified quality factors. Could not specify quality practices and stated the teacher should follow the IEP
2. Understand importance and process for visits/observations to special education classrooms.	**Not met**	Noted value in conducting observations but did not convey a depth of understanding about the process because she did not implement the protocol as intended	**Not met**	Stated the importance of classroom observations but did not use the form to guide practice and new learning. Limited understanding of use of comprehensive observational tool which impacted overall learning.
3. Understand the use of the *PULSE* Classroom Observational Protocol	**Not met**	Did not utilize the protocol as designed	**Not met**	Did not use protocol because it was too detailed and distracted from observing various practices in the classroom

<u>*Learning Objectives for PULSE Session 4*</u>

PULSE Session 4 was in essence a continuation of *PULSE* Session 3, further focusing on *technical competence* for special education. The three goals focused on: (1) Developing a foundational information base for understanding special education in general and California in specific, (2) Learning about specific technical resources to assist in providing problem-solving special education issues, and (3) Acquiring a knowledge base to help principals avoid problematic intervention practices often found in schools that can confound learning outcomes for students.

<u>*Implementation – What Occurred in PULSE Session 4*</u>

In Session 4, we began with a brief review of what occurred in Session 3 regarding the *PULSE* Classroom Observation Protocol. I began by inquiring whether or not either principal had trialed the observation protocol over the past two weeks. Both principals expressed that while an observation form is useful to capture global details during informal classroom visits, they both stated again that the *PULSE* Classroom Observation Protocol would not serve this purpose well. To recall, Erin and James stated that the specificity of the form was too detailed and it would not add value to their current observation note-taking method. In the end, neither principal attempted to use the *PULSE* Classroom Observation Protocol.

We then transitioned into the specific activities for Session 4 that further addressed *technical competence* for special education. First we reviewed the Legislative Analyst's Office (State of California) overview summary about special education services and laws (L.A.O., 2013). Principals were asked to review the summary prior to this session. The intent of this activity was to provide Erin and James with a broad foundational base for understanding a spectrum of special education-related technical matters. Topics addressed in the summary included: laws and compliance; eligibility; programs/services; demographic information by disability and programs; special education funding; private and non-public schools; and academic performance data.

To assist with enhancing the learning process for this subject area, I had Erin and James participate in a charting activity using a three-column chart to capture their understanding about the LAO content and help them gauge the relative importance of the specific topic for their work as principals. At the same time, I began recording their responses in note form, so I could reflect and determine the extent of learning that took place for this activity in relation to the goal area. The three-columned chart (Appendix E) contained the following prompts pertaining to each of the six topics from the LAO document: (1) What I know about…?, (2) Why is this important?, and (3) How important is this for my job?

Erin responded first by jotting down brief phrases and statements for each topic and column. The responses provided by Erin included three to four word phrases and longer sentences. For example, for the prompt "What I know about…special education funding," Erin jotted down statements such as: *funding comes from multiple sources, e.g., Federal, State, local means; the mandate continues to be underfunded to cover full costs; special education is very costly and continues to increase*. Under the prompt "Why is this important?" Erin included phrases such as: *free and appropriate public education and the ever-increasing cost of special education and the costs paid out by the local school district create a lose-lose situation with*

everyone blaming special education. For the final prompt "How important is this for my job?" Erin included statements like: *everyone must be watchful about spending money but how to do this is difficult; hard decisions when cost are very high but not let that interfere with what is needed for a child.* When I asked Erin what she would say if asked the same question regarding importance for her about understanding special education funding, she stated:

> In the past, I might have dismissed it as not that important for me to know. I assumed there was enough funding to cover special education for districts but didn't realize the extent of the problem all around, i.e., Federal, State, and local funding contributions. All schools including regular ed are all paying for the cost.

James completed the charting activity in a similar manner as Erin. In an example of James' work, he responded to the prompt: "What I know about demographic information?" with phrases such as: *increase in students w/autism leading to higher cost for sped; problem areas for identification: over- African-Am students w/emotional disturbance while Asian Am lowest rate in SPE-could be under identified.* For the second question: "Why is this important?" James included: *the identification issues in SPED can become larger problem for districts when not addressed* (referring to State oversight). And for the final question, "How important is this for my job?" James included statements such as: *examine my own school's demographic information and compare to district wide*; *Are their some things I should know about that are off my radar right now, my school is the most diverse in the District.*

As Erin and James concluded this activity, Erin emphasized that the design of this activity and the questions asked of them, required her to be reflective about the content and personalize special education a bit more in regards to her practice. When I asked James about his reflections of the activity, James did not offer anything in specific as closing comments.

Next, I introduced and orally reviewed the content of two guides focused on compliance-related timelines and student discipline procedures. These technical guides were designed to be practical reference sources with easily accessible information to assist principals and special education teams in decision-making activities. First, I presented Erin and James with a problematic vignette focused on a student's behavioral incidents. In this activity the principals were asked to apply the procedures outlined from the two procedural guides to help develop a plan of action to address the problem at hand. Erin and James simultaneously joined together and began referring to the guides and questioning me about matters specific to the vignette (i.e., status of past behaviors, total number of suspension days for the student).

During my observations of this vignette activity, James reviewed the details and asked clarifying questions. When I inquired and asked James to share his thinking process he directly referenced the discipline guide citing statements about the need for the school IEP team to meet and consider further testing or support for this student as the suspension days were nearing the threshold of ten days (as specified on the guide).

When I asked Erin to share her reflections about the vignette, she commented on student suspensions and impact on student progress. Erin stated that since suspension incidents were all similar, she believed that the IEP team should take action immediately to address potential further behavioral incidents.

Overall, both principals shared the importance of the content in this vignette and addressing special education students' behavior needs. They thought it was important to consult

with their special education staff about necessary action steps since the staff would be designing and implementing any behavioral or intervention plan for students with special needs.

In preparation for this next activity, James and Erin were asked to read three articles focused on problematic practices often used in schools regarding student support. In a similar manner to other sessions, we mapped out important highlights from each article to establish a baseline of information and knowledge about each summary. The purpose of this activity was to provide an opportunity for the principals to discuss the research, reflect upon their own practice, and deepen their learning about special education.

Erin and James discussed various aspects of the articles and shared insights about the faulty notions and problematic literacy issues for students. For example, Erin recollected about a professional dilemma she faced a number of times in her teaching career about determining the right support for a student and how to provide it. James reflected on the research regarding long-term consequences of poor reading skill development.

Analysis for PULSE Session 4

The data for Session 4 was analyzed similar to methods used in prior sessions to evaluate the extent to which Erin and James met each lesson objective. As shown in Figure 4.17, Erin and James were successful in meeting each learning objective for Session 4 addressing the focus area of technical competence for special education.

After analyzing and reviewing the feedback from the Legislative Analyst's Office (LAO (2013) reference activity, Erin and James jointly participated in reflecting on their learning through a charting activity. Both principals considered each of the six topics areas of the LAO reference brief and included phrases and sentences under each prompt that addressed the topic areas. Erin commented on how important this baseline information is to an administrator. Erin stated:

> I think a lot of this special ed information would have been helpful when I was in my admin program (administrative credential program). Once you're in the job you just have to pick it up along the way. That's make it hard and confusing…trial by fire.

In a similar manner, James addressed all six-topic areas during this activity and included various phrases and sentences, citing examples from the document as well as commenting on the importance of the larger global view about special education. James reflected:

> This is basic, good information for all of us to know. Yes I agree (with Erin) that this should be in our Tier one or Tier two program. They could dedicate like several sessions to special education management. It would be good if this (*PULSE*) could be condensed into a shorted time frame…like an hour.

Next, I reviewed their feedback using the two technical guides, three research articles, and the problem-solving vignette to find patterns of learning to determine whether there was an increase in technical competence for Erin and James. All in all, the principals were able to extract information from the resources to develop a solution for the problematic vignette. Both Erin and James applied decision-making skills to the vignette by referencing the resource guides, asking questions of me, and creating a plan of action. When I asked Erin about the usefulness of the two technical guides, Erin stated, "I can see how useful these guides would be to help keep us

on track in terms of timelines with all the confusing discipline issues that can come up."

James also shared his perspective on not only using the technical guides to direct his work but would also consider the support of his special education staff. James said:

> I would need to rely on the expertise of my special education staff (e.g. special education case manage, school psychologist, behaviorist) to take action while I could help oversee the process….but I would need to trust that they know what they're doing.

As the researcher, I then wanted to validate my assumptions about the theory of change/implementation. I specifically looked at the data to establish a baseline of important concepts gleaned from the resources. Erin reflected upon her own experiences working with students in her school. Erin stated:

> This is really bad but I know we've waited for a student to almost fail before getting them help. It could be a developmental lag, I've said that before or we shouldn't test a child (for special education) because they're not two years behind.

James stated that the articles were insightful, particularly the studies on literacy given his narrow experience as a middle school math/science teacher. James reflected:

> This kind of makes total sense to me. When I was a science teacher, I had a student who seemed smart but had a hard time reading the science text. Maybe he was special ed and I never knew it.

In summary, Erin and James shared their experiences about problematic issues and dilemmas they have faced as new administrators. Their comments suggest that both Erin and James responded to the activities in a manner indicating they understood the content and goals of the session validating my theory of change and implementation. They were able to reference the materials for problem-solving purposes as well as consider implications of the research articles on their practice as educators.

Figure 4.17: *PULSE* Session 4 Principal Technical Competence Learning Objectives

Technical Competence for Special Education	Principal Erin		Principal James	
PULSE Learning Objectives: 1 = Not met; 2 = Partially met; 3 = Yes met	Was objective met?	Evidence for meeting the objective	Was Objective met?	Evidence for meeting the objective
1. Acquire basic foundation regarding special education (California specific)	Yes met	Summarized areas of LAO document with relevant references to show knowledge base.	Yes met	Directly reference resources in regards to compliance, SPED demographic information, eligibility, services, etc.

2. Learn special education technical skills including resources and information to guide principal practice	Yes met	Applied new knowledge in problem-solving vignette to create plan of action	Yes met	Took action and needed to reference material or school team members to create a plan during learning vignette
3. Understand consequences of common problematic intervention practices and long term-effects	Yes met	Reflected on specific practices involving students; identified several of the notions and cited examples within her school	Yes met	Summarized highlights of research, applied to activity and recognized implications to practice

PULSE Session 5: Process Data Review

In this next section, I solicited feedback from Erin and James about the design process that was utilized for the study to determine if the intervention increased learning as intended by my theory of action. Specifically I sought their impressions about the various activities, content, structure, and format of the ten week *PULSE* workshop series. I then summarize the analysis of both impact and process data for Erin and James, reflect on the theory of action for this study, and take into account the findings as they pertain to the dimensions of *efficacy, cultural proficiency*, and *technical competence* in special education leadership.

Learning Objectives for PULSE Session 5

The primary goal for *PULSE* Session 5 was to review and reflect upon *PULSE* workshop Sessions 1-4 to determine the overall extent of learning that took place by the two principals and help me gauge the usefulness of the *PULSE* activities and content. The summary of findings that include the specific objectives and activities from each session were analyzed to identify if the theory of change and intervention (Figure 2.1) resulted in the outcomes expected for the principals. To recall, the theory was constructed to gauge if the learning processes occurred as designed, then, as designed, principal behavior would shift from a problematic state to a more desired state regarding instructional leadership for special education.

Implementation Sequence for PULSE Session 5

First I met with Erin and James to facilitate a discussion of the four workshop sessions along with the activities using the session agendas as the guide. My goal was to capture critical feedback about the format and content of each *PULSE* session. As I reviewed each session with Erin and James, I inquired by asking the following probing questions: what did he/she recall specifically about the session activities; what was useful; and I asked them to share any personal insights about experiences throughout the course of the study. In the paragraphs below, I briefly recall and generally summarize each PULSE session and the stated target dimension the activities were designed to address.

I began by reviewing the two objectives for *PULSE* Session 1 which focused on *principal efficacy*. When I asked James about his experience during the *PULSE* process, James reflected and recounted his initial experience with "not knowing all the answers" when he participated in the structured interview process in Session 1 for which he tended to give low baseline scores. He

elaborated and shared during Session 1 how the materials and readings revealed new information for him about special education. Erin gave reference to the information from the activities of Session 1 as important content to include in new administrative training course work on special education.

To review from *PULSE* Session 2, I introduced the construct of *cultural proficiency* for special education that included four objectives intended to provide insight and perspective regarding the unique role special education holds within the larger school environment. In the first activity, the principals analyzed and dissected the similarities and differences between general education and special education across six different function areas. Next, Erin and James worked through several vignettes and discussed leadership implications derived from their reading of two reference sources focused on cultivating and keeping committed special education teachers. Finally, Erin and James were asked to use the *PULSE* Classroom Tour Guide to help them understand the design and organization of a special education classroom. My theory of implementation assumed that each principal would use the Classroom Tour Guide and share their perspective on its function and use.

In Session 3, the focus was on *technical competence* for special education and three objectives were defined. As stated earlier in the chapter, I solicited and collected feedback from the principals on their use of the *PULSE* Classroom Tour Guide. Both principals stated the guide was practical and helped direct their attention around the special education classroom in a constructive manner.

In a subsequent activity, I introduced the *PULSE* Classroom Observation Protocol to help principals gather feedback during informal classroom visits, identify quality practices specific to special education classrooms. The principals attempted to trial the use of the protocol during a video classroom teaching lesson however they strongly voiced their concern stating the design and content was too complicated. As a result, this activity signaled an end to the session however they both agreed to be open and give the protocol a trial run during the next two-week period.

Session 4 was a continuation of building knowledge and skills regarding *technical competence* for principals in the area of special education. Three objectives were addressed and activities concentrated on establishing a solid information base about special education, utilizing technical resources designed to guide principals through challenging dilemmas, and reviewing and applying research intended to help principals avoid problematic intervention practices often found in schools. In the first activity, I sought to capture feedback about the *PULSE* Classroom Observation Protocol. However, the feedback was abbreviated since the principals shared that they did not trial or implement the observation form as discussed in Session 3. In the second activity, Erin and James participated in creating a summary chart by citing their understanding and perspective about a broad array of special education-related topic areas (i.e., compliance, eligibility, funding, services, demographic information, etc.). Then we reviewed two special education technical guides so that the principals could apply their learning to a problematic vignette concerning a student discipline matter. In the final activity we summarized highlights from several research articles, many common yet disconcerting "intervention" practices often found in schools and then discussed implications to practice as educators.

As I reviewed each *PULSE* session with the principals, I also captured their feedback about the extent to which they preferred certain activities and instructional processes as presented during the intervention series. In addition, I inquired about the extent to which activities should remain as is, be modified or omitted from the intervention workshops. Figure

4.18 reflects feedback from Erin and James regarding the status of various *PULSE* workshop series activities and the learning processes used during the intervention. As the researcher, I analyzed their responses and how they provided me insight into the activities and learning processes that were useful, practical, and ultimately enhanced principal perspective, knowledge, and skill regarding special education instructional leadership.

To highlight Figure 4.18 items, Erin and James found the following activities useful for future practice: use of vignettes/scenarios, video excerpts, charting and mapping, reference guides, and the *PULSE* Special Education Classroom Tour Guide. However, both Erin and James had constructive criticism to share about several other activities. First, they suggested that the *PULSE* research articles and educational summaries should be modified in length such a through an abbreviated summary. Second, they agreed that the *PULSE* two-hour session was too long and James suggested that the training content be incorporated into a more condensed professional development session such as a one-hour format rather than the two-hour format. Third, Erin and James also indicated that a two to three week break between sessions was workable. Finally, in reference to the use of the *PULSE* Classroom Observational Protocol*,* both Erin and James shared it was too difficult to use and not helpful or practical as an informal observational form.

Figure 4.18: *PULSE* **Session 5 Review and Summary of the** *PULSE* **Workshop Series**

Session Activity or Learning Process	Comments Regarding Session Activity	Keep	Modify	Omit
PULSE Research Articles and Educational Summaries	Suggestion that the research articles and educational summaries be re-format into outlines to enable a more efficient/quick review of the content material by participating principals		X	
Use of vignettes and scenarios	Helpful to bring issues "home" and emphasized important objectives	X		
Use of video excerpts	Useful tool to use as method for highlighting objectives and providing experiential learning opportunity	X		
Use of Chart/Mapping	Helpful to direct an activity towards common themes or subject areas	X		
Use of Resource Guides/References	Practical resource for ongoing leadership purposes; accessible	X		
PULSE Special Education Classroom Tour Guide	Informative and helpful, brief and practical guide; easy to use	X		
PULSE Classroom Observation Protocol	Too detailed, too problematic, impractical; seemed evaluation-like			X
2 Hour *PULSE* Session time frame	Long but ok for the purposes of this study; reduce into must more brief format for practical purpose of providing essential information to working principals		X	
Two to three week break period between *PULSE* sessions and 10 week intervention period	For purposes of the study the two to three week cycle period worked; The 10 week intervention time frame was adequate to convey material and expect feedback about effectiveness of content and design process. Not practical for the everyday working principal; modify into more brief *PULSE* series		X	
Structured Interview process and content: pre/post	Interesting method for starting the study; Perhaps incorporate into a training program with a self-report questionnaire to help principals evaluate their own learning growth in a pre and post format		X	

Summary of PULSE Process Data Analysis

Intervention process data was collected for the *PULSE* workshop series as a means to understand the effect of the impact data and its associative relationship. For this study, the theory of action had as its premise, that through a series of carefully designed activities targeting specific deficit areas, over the course of ten weeks, principal instructional leadership behavior would be enhanced. Process data was collected across four of the five *PULSE* sessions and systematically analyzed to help gauge and understand the principal learning processes as determined by the extent to which each lesson objective was met. In Figure 4.19, *PULSE*

workshop series objectives from each session are presented in summary form indicating the extent that each principal exhibited evidence for meeting the objective addressed through the various activities of the session.

Figure 4.19: *PULSE* Workshop Series Learning Objectives Summary for Erin and James

	Erin: Status of Objective	James: Status of Objective
Session 1: Principal Efficacy		
Objective 1	Yes Met	Not Met
Objective 2	Yes Met	Not Met
Session 2: Cultural Proficiency		
Objective 1	Yes Met	Yes Met
Objective 2	Yes Met	Yes Met
Objective 3	Yes Met	Yes Met
Objective 4	Yes Met	Yes Met
Session 3: Technical Competence		
Objective 1	Partially Met	Partially Met
Objective 2	Not Met	Not Met
Objective 3	No Met	No Met
Session 4: Technical Competence		
Objective 1	Yes Met	Yes Met
Objective 2	Yes Met	Yes Met
Objective 3	Yes Met	Yes Met

As depicted in Figure 4.19, Erin met nine of twelve learning objectives. In the target area of *principal efficacy,* both objectives were met. The activities and learning processes utilized for exploring Erin's existing beliefs, attitude, and disposition about special education only reinforced her existing and solid level of efficacy for special education leadership. As revealed during Session 1, Erin was successful on both goals because she was able to effectively apply the learning material from the articles to the vignette exercises. In addition, she voiced how she could utilize the concepts taught at some future time in her practice as a principal.

In the target area of *cultural proficiency*, based on observational data and feedback, Erin met all four objectives, indicating an understanding of the unique context that special education holds within the larger educational setting. Erin was able to define and features associated with special education as compared to general education and referenced research articles about the unique needs of special education teachers in terms of professional development, principal support, and caseload time management.

In the target area of *technical competence*, Erin met three of six learning objectives with one partially met and two unmet. The three objectives that were unmet or partially met were complicated by the implementation process breakdown during Session 3 of the *PULSE* Classroom Observational Protocol. Erin's learning from this session was compromised since she had limited opportunity to use the template and never fully grasped the presentation of quality practices in special education classrooms. For the three objectives that were met during Session 4, evidence indicates Erin displayed a strong foundation of special education knowledge and skill. Erin met the objectives by effectively summarizing broad concepts defining special education in general as well as using the material and resources in problem-solving a lesson vignette.

Through an analysis of the process data, a slightly different learning profile emerged for James compared to Erin. For the *PULSE* learning objectives, James met seven of twelve. For

principal efficacy and as indicated by multiple data sources such as observation and direct account, James displayed a sense of uneasiness as a consequence of the material and activities. James did not meet either objective, indicating that for the target area of efficacy, the activities and learning processes utilized for exploring existing beliefs, attitude, and disposition about special education did not work as intended. As indicated through James' first hand accounts during Session 1, he stated how the session content and material was new for him or how he did not want to give staff incorrect information given his inexperience with special education.

In Session 2, focused on *cultural proficiency*, James experienced more success with the learning process and materials and met all four objectives. He participated along side Erin in the summarizing activity as well as the vignettes and effectively revealed his application of the material to a problematic situation indicating a baseline of understanding regarding the unique role and place special education maintains within the larger general education setting. James' success on the learning objectives were determined through his application of the content and material taught, such as clearly identifying similarities and differences between special education and general education. In a practical example, James cited the importance of considering teacher isolation as a factor for special education program success and was considering relocating his special education classroom to a more central place within the school to address this potential issue.

Session 3 and 4 addressed *technical competence* in special education. In Session 3, similar to Erin's experience, James' learning outcome was negatively affected by the complication and implementation difficulty concerning the *PULSE* Classroom Observation Protocol however he voiced support in regards to the importance of observing in classrooms but did not utilize the observational tool. In Session 4, evidence suggests James was able to meet all three objectives revealing a foundation base of both knowledge and skill pertaining to *technical competence* in special education. James' level of success during Session 4 was based on evidence that he directly referenced resources provided in order to address a featured learning vignette. He also summarized and highlighted the importance of the research shared and recognized implications for his own practice as an educator.

Overall, the *PULSE* workshop series process, including the curriculum, materials, and activities provided Erin and James with a unique opportunity to delve into an area of need and to explore new areas within special education as well as enhance their practice for instructional leadership for students with disabilities.

Section 1 Impact Data and Section 2 Process Data Findings Summary

In design development research, impact data provides the investigator a means to measure, analyze, and understand the effect the intervention had on principal knowledge, skill, attitudes, and behavior. Design process data allowed me to systematically observe and evaluate the various actions that occurred during the implementation of the *PULSE* workshop over a ten-week period. When synthesized, the impact and process data were points of information, justifying or disproving the underlying theoretical basis and findings. In the case of *PULSE,* looking at the impact and process data together helped me understand the underlying story of *PULSE* and how the activities and learning processes used over the ten weeks affected the behavior of the two principals in the areas of instructional leadership for special education. In the sections below, the findings for each principal will be summarized as they pertain to the three dimensional areas of instructional leadership for special education.

This genesis of this design study was created to address a problem of practice whereby principals are expected to be instructional leaders, however when it comes to the role of leadership for special education, this important function tends to become problematic and neglected. Informed by the professional knowledge base, I targeted three dimensions to address with principals: *efficacy*, *cultural proficiency*, and *technical competence* for special education. My theory of change for the intervention was built on the assumption that if principals gained in *efficacy*, became *culturally proficient* about special education, and developed more *technical competency*, their leadership in special education would be enhanced.

Impact and Process Data Summary for Principal Erin

In general, impact and process data findings suggest that leadership behavior for Erin moved in a positive direction across the three key target areas of this study: *efficacy*, *cultural proficiency*, and *technical competence* for special education (Table 4.1). When I analyzed Erin's own pre and post data along with the data from the two special education teachers at Erin's school, there was positive movement in all three *PULSE* dimensions indicating modest growth towards target leadership behaviors. However, Erin's own rating for collaborative relationships slightly decreased from a score of 5 to 4 as she indicated she may have over-rated the level of relationships with teachers. Nevertheless, her teachers' scores increased in this area. Specific to the process data, Erin was successful in meeting nine of twelve learning objectives across the three dimensions as measured by her participation and quality of understanding of the session content. The three objectives that were not met were complicated by the implementation process failure during Session 3 concerning the *PULSE* Classroom Observational Protocol.

Upon further analysis of the impact and process data, overall summary findings strongly suggest that the activities and learning processes utilized during the *PULSE* workshop series enhanced Erin's behavior in the area of leadership. This positive change in behavior is evidenced by the fact that virtually all the outcome measures (structured interview scores), 26 of 27, either remained high (4 or higher) or showed an increase based on Erin's own ratings and the ratings of the two special education teachers at her school.

I infer from the impact and process data, through the activities and learning processes of the *PULSE* intervention, that Erin acquired information, insight, and skill in better addressing the special education leadership role. Impact data results suggest that the *PULSE* intervention process had an overall positive growth effect on her leadership behavior. According to the theory of change and intervention, Erin's positive growth across the three target areas implies that this change may be attributed to the *PULSE* workshop intervention series. By the end of the ten-week period and compared to Erin's behavior prior to the initiation of the *PULSE* intervention series, impact measures across all three dimensions indicate that Erin visited special education classrooms more often (*efficacy*), gained in understanding unique aspects about special education (*cultural proficiency*), and increased her special education knowledge base (technical competence).

Table 4.1 *PULSE* Impact Data Findings Summary for Principal Erin

Principal Efficacy		Baseline (pre)	Outcome (post)	Impact Difference
Question 1: Classroom visits	Erin	4	4	0
	RSP Teacher	2	4	+ 2
	SDC Teacher	4	5	+ 1
Question 3: Confident in solving problems	Erin	3	5	+ 2

	RSP Teacher	3	4	+ 1
	SDC Teacher	3	4	+ 1
Question: 7 Contributions are useful	Erin	5	5	0
	RSP Teacher	2	4	+ 2
	SDC Teacher	4	4	0
Cultural Proficiency				
Question 4: Collaborative relationship	Erin	5	4	- 1
	RSP Teacher	2	4	+ 2
	SDC Teacher	3	5	+ 2
Question 5: Understand unique differences	Erin	4	5	+ 1
	RSP Teacher	2	4	+ 2
	SDC Teacher	3	4	+ 1
Question 9: Know how to find resources	Erin	2	4	+ 2
	RSP Teacher	4	5	+ 1
	SDC Teacher	4	4	0
Technical Competence				
Question 2: Have adequate knowledge	Erin	2	4	+ 2
	RSP Teacher	3	4	+ 1
	SDC Teacher	2	5	+ 3
Question 6: Provide helpful feedback	Erin	2	5	+ 3
	RSP Teacher	3	4	+ 1
	SDC Teacher	4	5	+ 1
Question 8: Identify good practices	Erin	4	4	0
	RSP Teacher	2	4	+ 2
	SDC Teacher	3	4	+ 1

Impact and Process Data Summary for Principal James

A close analysis of impact data for James clearly suggests strong positive movement across the three targeted dimension areas of principal leadership behavior (*efficacy, cultural proficiency,* and *technical competence*). This positive movement is evidenced by the fact that 18 of 18 post measurement scores all showed increases (Table 4.2). James' initial baseline scores tended to be low (3 or lower) while most outcome scores, seven of nine, were higher by two levels indicating strong growth towards the targeted behavior. Furthermore, a review of the data from the special education teacher at James' school corroborates the apparent change in behavior. All responses during the post structured interview with the teacher revealed a marked positive shift from the initial interview period to the post intervention interview time.

By just considering James' impact data, the picture of progress is incomplete. When process data is entered into the analysis with the impact data, this clear interpretation becomes more complex. Process data was analyzed to gauge the effectiveness of the intervention design elements on enhancing James' leadership behaviors. For each *PULSE* session, learning objectives were included and a rubric applied as a means to determine the extent of principal success in learning from the content.

Process data analysis indicates that for the *PULSE* learning objectives, James met seven of twelve objectives, one was partially met and four were unmet (Table 4.2). James' process data profile was complicated by the fact that in two sessions he did not meet the learning objectives completely. For Session 1, James did not meet either objective focused on *efficacy*. Following the logic of the theory of action, in this case, the *PULSE* learning process failed to affect James' *efficacy* in a positive manner. However, what complicates this piece of analysis is the post intervention impact data: The outcome data for both James and the special education teacher at

his school, revealed marked increases in positive behavior in the *efficacy* dimension area when compared to initial baseline data. This seemingly contradictory finding suggests that despite James' apparent lack of success during *PULSE* Session 1, by his own rating and that of the special education teacher's, a change in behavioral growth did occur in this dimension targeted to address the area referred to as *principal efficacy*. For example, according to the impact data, James positively changed his behavior in the following areas, by visiting classrooms more frequently, improving problem-solving skills, and making better contributions in meetings. Given that the data from the special education teacher was included in the analysis, the triangulation of data lends more credibility to the fact that a change in behavior did occur as indicated after the 10-week intervention, however the linkages back to the activities and learning from Session 1 addressing *efficacy* are weak.

Similar to Erin, three objectives that were part of Session 3 were impacted by a breakdown in the implementation process during the initial roll out of the classroom observation form. This breakdown, in theory, should have negatively impacted the *technical competence* area for James but because he was able to learn other technical skills during the proceeding session, the overall process data resulted in positive findings for James for *technical competence*. A similar positive finding is also echoed by James' growth in the impact data. Both James' own rating and the special education teacher ratings increased in the areas addressing, knowledge about special education, helpful feedback, and identification of practices.

Based on analysis of both impact and process data, including the triangulation of data from the special education teacher at James' school, overall, the data suggests strong growth for James in the target areas of *cultural proficiency* and *technical competence* and modest growth in *efficacy*. According to the theory of change and intervention, James' positive growth across the three target areas can be, at least partially, associated with the *PULSE* intervention. Compared to James' behavior prior to the initiation of the *PULSE* intervention workshop, at the end of the ten-week period, impact measures across all three dimensions indicated James visited special education classrooms with greater frequency (*efficacy*), he increased his sensitivity about special education (*cultural proficiency*), and his feedback to teachers improved (*technical competence*).

Table 4.2 *PULSE* Impact Data Findings Summary for Principal James

Principal Efficacy		Baseline (pre)	Outcome (post)	Impact Difference
Question 1: Classroom visits	James	2	4	+ 2
	RSP Teacher	1	4	+ 3
Question 3: Confident in solving problems	James	1	4	+ 3
	RSP Teacher	2	4	+ 2
Question: 7 Contributions are useful	James	2	4	+ 2
	RSP Teacher	2	4	+ 2
Cultural Proficiency				
Question 4: Collaborative relationship	James	3	4	+ 1
	RSP Teacher	2	4	+ 2
Question 5: Understand unique differences	James	1	4	+ 3
	RSP Teacher	1	4	+ 3
Question 9: Know how to find resources	James	2	4	+ 2
	RSP Teacher	3	4	+ 1
Technical Competence				
Question 2: Have adequate knowledge	James	2	4	+ 2
	RSP Teacher	1	4	+ 3

Question 6: Provide helpful feedback	James	2	4	+ 2
	RSP Teacher	3	4	+ 1
Question 8: Identify good practices	James	3	4	+ 1
	RSP Teacher	2	4	+ 2

Impact and Process Data Conclusions

Overall, the impact and process data findings strongly suggest that for Erin and James, the *PULSE* workshop series contributed to enhancing principal leadership behaviors for special education and the impact of that change can be attributed to the design of the intervention. The overall structure, content, and method of the *PULSE* intervention series resulted in positive growth for the principals. In the end, Erin and James suggested that some modification to the length of sessions and the amount of reading material be addressed in future iterations to make *PULSE* feasible for working principals who have limited time for their own professional learning. Findings from this investigation identify a number of ways in which the design seemed to enhance the principal's learning and development in instructional leadership for special education.

*   *   *   *   *

The design development impact and process data of this study convey a story with a positive ending—the researched-based design elements of the *PULSE* workshop series can be utilized to help principals enhance their instructional leadership for special education.

CHAPTER FIVE:
DISCUSSION

Introduction

Principals are expected to be instructional leaders for all students however when it comes to leadership for students with disabilities, this role can be problematic due to a lack of efficacy about their special education leadership role, their unfamiliarity about the unique cultural features of special education, and a lack of technical competence for special education. These factors contribute to a diminished principal leadership role.

For this design study, I created and implemented the *PULSE* workshop series, a researched-based professional development workshop for elementary principals intended to improve their practice as informed, engaged, and confident instructional leaders for special education. The professional development workshop series referred to as *PULSE (*Principals Utilizing Leadership for Special Education) was based on the premise that elementary school principals strive to be effective in their role as instructional leaders for all students in their schools. I investigated the efforts of two principals and interviewed their respective special education teachers as a means to corroborate impact data regarding the extent to which principal behavior was enhanced or moved in a positive direction in leading special education.

Based on analysis of findings, impact and process data suggest that for the two principals, Erin and James, who participated in this study, the *PULSE* workshop series contributed to a positive shift in behavior across the three target areas and this shift enhanced their principal leadership skills for special education. In the sections that follow, I recall the theory of action for this study as the basis for intervention and change for which I was trying to affect. I then present a number of key design elements that were identified as essential features of *PULSE* and present a few components that could be modified to more fully address particular aspects of principal instructional leadership. I offer suggestions for potential future *PULSE* design iterations, highlight any potential limitations and discuss aspects related to feasibility. Finally, I conclude with my reflections as a researcher and leader.

Theory of Action

In elementary schools today, principals are expected to be instructional leaders for all students, including students with disabilities. However when it comes to the day-to-day work of overseeing services and programs for students with disabilities, principals come with little experience or guidance for this role. The theory of action provided the rationale and plan for how the intervention addressed this problem of practice. Together, the theory of action and theory of change formed the basis of the theoretical model by which the intervention took place. The theory of change and intervention was built on the premise that if principals gained in *efficacy*, became *culturally proficient* about special education, and developed more *technical competency*, their leadership behavior in special education would be enhanced.

For this design study, I created and carefully implemented a researched-based professional development workshop series, known as *PULSE*, comprised of various activities and teaching methods aimed at elementary principal learning. The *PULSE* workshop series were developed to address this problem of practice whereby principals receive little to no formal training in leading special education at the pre-service and on-going level. The primary participants were two early career elementary principals who volunteered to participate in the

study provided feedback to me on assessing the value of the study design, content, and process. The specially designed activities as well as method for teaching the content were components of the theory of change. The activities and related curriculum were specifically designed to address the targeted behavioral dimension that I was trying to enhance for each principal.

To validate the findings and to address any bias that may have affected the study, I reflected upon my own practice and carefully reviewed all findings. In addition, I employed the use of a critical friend to help analyze and interpret the data. My intent was to ensure that the conclusions were supported with evidence and that I was able to confirm the findings as unbiased as well as address validity and reliability issues.

After a comprehensive review of the data, findings suggest that the *PULSE* workshop design, content, and process contributed to a positive change in principal behavior as it relates to the three target dimensions: *efficacy*, *cultural proficiency*, and *technical competence*. The findings indicate that both principals benefited from the *PULSE* intervention process as reflected by impact data and review of the qualitative process data.

Prior to participating in *PULSE* and typical for most principals, Erin and James had received little-to-no formal course work or training regarding special education. Moreover, training specific to leadership in special education was equally lacking. Over the course of the 10-week *PULSE* intervention period, the principals became engaged in the intervention learning process as indicated through their active participation in each workshop session, reviewing and wrestling with the session content, and applying the instructional concepts to realistic scenarios and creating potential solutions to use in their daily practice. Principal impact data was corroborated by the special education teachers at each school site who indicated by their structured interview rankings as well as feedback, that over the 10-week period, each principal had shifted their behavior towards incorporating the targeted behaviors into their practice to a greater extent than prior to the *PULSE* workshop. The principals acquired skill, knowledge, and confidence over the course of *PULSE* that resulted in increased efficaciousness, cultural proficiency, and technical competence in regards to their leadership role for special education. Although the targeted principal behavior moved in a positive direction toward the desired outcome, this success was not unblemished.

No matter how perfect a theoretical plan might look prior to implementation, there were a number of complications that became exposed as this intervention study progressed. One significant point is the fact that the theory of change assumed that each principal possessed a basic generalizable leadership foundation. I did not take into account the need to include a learning component focused on identifying and developing one's own awareness of skills necessary to lead as a principal overseeing special education. The added feature to the theory of change and learning might have included a session with activities designed to establish a broad foundation of leadership abilities and then identify how those similar leadership skills could be generalized for leading special education as well. This added feature may have been a positive precursor for principal James to explore and identify leadership skills he already possessed prior to embarking on affecting his efficacy that was attempted during the first *PULSE* session.

In addition, as revealed in *PULSE* Session 3, there was a significant breakdown in both the design and implementation process regarding the *PULSE* Classroom Observation Protocol. As the researcher, my theory of implementation assumed that if I instructed the principals on the rationale and use of a new observational tool, they would simply buy into it and use it as intended. My failure to trial the observational protocol and seek principal feedback prior to presenting it in the *PULSE* workshop was a factor that may have played into the principals'

refusal to use it in the end. In addition, my lack of proper introduction and guidance (i.e. teaching) on the use of the tool for the principals may have added further complication to the planned implementation. Furthermore, I was uncertain if I should modify or recreate the observation protocol during the study so I abandoned the tool without conducting a follow up session.

Key Design Features and Modifications

My analysis of the intervention materials that were identified as essential components for *PULSE* showed that the two principals voiced solid support for the *PULSE* resource manual created for the professional development workshop series. The resource manual was inclusive of all research articles, summaries, protocols, and guides that were utilized during the *PULSE* workshop. The principals agreed there was positive value in retaining the research articles and summaries—particularly as the basis for laying out the foundational special education issues for each session and structuring the discussion and charting activities. The principals also stated support for continuing to include the vignettes and scenarios as a method to help deepen the understanding and application for the concepts presented in *PULSE*.

In addition, the *PULSE* Special Education Classroom Tour Guide was also considered a valuable tool by both principals and helpful as a guide to further understand the special education classroom organization and design. My findings support that this protocol is fundamental for the non-special education leader to acquire an understanding and appreciation for the detailed differences between general education and special education.

The principals also expressed support for either small group or dyad size learning opportunities—similar to what was done with this iteration of *PULSE*. The dyad size group allowed me as the researcher to observe the learning that was taking place and probe for additional details or concept development, particularly during the research article analysis.

In sum, findings suggest that the inclusion of the three target dimensions of *principal efficacy, cultural proficiency*, and *technical competence* are important constructs to include and continue to address in principal leadership training for special.

Future Design Features

With any research experiment or study, the opportunity to suggest new enhancements for any future iteration can be helpful as is the case for my study. In response to the design of this study, potential modifications for a future *PULSE* workshop should address the need for the researcher to observe the principal "enacting" the concepts reviewed and taught during the intervention lesson. I learned the presence of such a data point would strengthen the overall findings.

In addition, it is recommended that the design include a session where principals be provided an opportunity to talk through and seek real-time guidance about pertinent special education related issues they were currently facing. At several junctures throughout the study, one or both principals brought-up real-time dilemmas and challenges they were experiencing in their schools. A session that allowed principals to present and work through their real-time challenges could have added value to the session activities where appropriate. For example, during such an activity, facilitated by the researcher, each principal could analyze potential options and then create choices for addressing the challenge based on the content material in a similar manner used for the vignettes. There is potential for this activity to help strengthen

principal learning by working peer to peer along side an expert to help model and direct their learning.

Also, a key insight from the current *PULSE* workshop iteration concerns the introduction and guidance on use of a classroom observation protocol. As previously discussed, the problematic implementation of the *PULSE* Classroom Observation Protocol in its current format must be improved upon if such a tool were to be used in the future. Perhaps a redesign of the observation template with input from principals and then trialed with a few principals might provide the opportunity to more fully address issues with content and structure of such a tool. Furthermore, the devotion of additional practice time with the observation protocol via video and classroom lesson observation would enhance feedback about the usefulness of the tool.

Finally, one other modification concerns the overall length of time for the *PULSE* workshop series. One principal stated that the two-hour time frame per session was too long. Going forward, two possibilities to course design might include that the *PULSE* workshop series be integrated into a training program for aspiring principals in a multi-session format or be designed as a more brief stand-alone professional development course encompassing 6-8 hours of total workshop time. Either possibility poses a modest adjustment of curriculum and re-evaluation of priorities to ensure that the three target dimensions are properly and adequately addressed for principal learning.

Study Limitations and Feasibility

An important consideration and ultimately a limitation in this study was the fact I focused on enhancing nine targeted principal behaviors over a brief ten-week period. The duration of the intervention was a ten-week period with the expectation and hope that each principal would continue to "behave" in an "enhanced" manner on an ongoing basis. However, I learned that a longer follow-up window regarding principal behavior, may have strengthened the over all impact of the content and process of *PULSE*. In essence, the ten-week intervention time frame limited the understanding of how sustainable the long-term expectation might be for principals to continue their behavior change into the future.

Another important limitation concerned the *PULSE* Classroom Observation Protocol. By not implementing this activity, I was limited in my ability to observe first hand principal learning based on the *PULSE* instructional content. To potentially deepen the level of change on particular target behaviors, such as informal visits to classrooms, I suggest that principals be observed giving feedback to their special education teachers once an observation has been completed.

A further limitation concerns the transferability of this study. I specifically focused on two elementary principals and their leadership behavior. With only two principals as the single focus and only from the elementary level, the transferability of findings to perhaps middle school or high school principals may be problematic. Since there are numerous structural and administrative differences in middle and high schools, a substantially modified design may be necessary to address the problem of practice for principals leading special education.

A number of feasibility factors related to training time, materials, and session format came into play when reviewing the overall *PULSE* workshop structure and process. The target audience for the *PULSE* workshop series is new or aspiring principals. The two principals who participated in this study volunteered to commit to 10-20 hours towards this research. The fact that they were present for every session and reviewed the material provided is a testament to their desire to enhance their own professional learning. For any new principal, the consideration

of adding a time-intensive professional development workshop to their full plate may pose a barrier for participating and completing the training. In regards to *PULSE*, the consideration of session time (e.g., 1-2 hours) and complexity of content (i.e., research articles or summaries) will need to be taken into consideration for beginning principals. In addition, the format of the training must fit into the principals work schedule. Consideration must be given to the reality of limited off-site opportunities for learning so therefore the learning format could be more accessible if offered via webinar, multi-partial day across the school year, or modified content to address a very abbreviated 2-4 hour professional educator conference format.

Reflections as a Researcher and Leader

As a special educator for over 20 years and school psychologist by training, I am humbled everyday by the dedicated commitment of school principals. Their tireless work and dedication on behalf of students under their care, often under seemingly chaotic conditions, continues to astound me. My comfort zone is special education however for most educators, like principals, this is not the case. I embarked on a lone journey a number of years ago to help elementary principals enhance their leadership specific to special education: At that time, I was a new and aspiring administrator and the means was principal by principal in the districts in which I worked. Principals seemed quite appreciative of the practical coaching and knowledge I offered, and over time I grew to understand this need as more of an education system-wide problem to address and that going at it on a more global level would be the best key strategy.

Over my career I have worked with more than 100 principals and for years I tried to make sense of what I saw as talented and great school leaders who seemed to wither into uncertainty when it came to overseeing special education in their schools. It wasn't until I arrived at U.C. Berkeley and LEEP that I was able to analyze and validate my years of anecdotal observations and begin to understand the complexity of effecting change within an educational system. Out of my desire to make change and address what is a real problem of practice in today's schools, I set out to conduct a design study intended to understand the facets and factors related to the learning process and also determine if what I created made any difference in principal learning. From this research intention, I created, and trialed a professional development intervention workshop, *PULSE*, focused on teaching new principals about special education from a leadership perspective.

Through my experience as a researcher with LEEP and *PULSE*, I gleaned a number of key take-aways that will continue to guide my ongoing evolution as an educator. My career-long observations about the learning processes of children were confirmed by my work on *PULSE*—always remain cognizant that everyone's readiness for learning and ability to apply new learning is truly unique, even for adults. One principal was theoretically *more* primed for the new learning I delivered than the other, however over time, both principals showed growth and one principal with the most to gain did indeed reveal the most growth.

Through LEEP, I am reminded that addressing systemic educational change is a continual process: We will never arrive at a destination because the end target is always changing because of ever-evolving socially constructed mandates that both guide and interfere with our daily work. I learned that the content and teaching methods we create and devise for both children and adults necessitate adjustments as new perspectives, technological innovations, and political changes require us to re-think and re-create our curriculum and modes of instruction to keep pace with educational demands.

Through my experience conducting the *PULSE* workshop, I found professional development for working educators to be a very delicate endeavor to successfully enact. I was continually aware of the tension between offering too much or too little information as I rolled out *PULSE*. Professional development for principals must be focused, targeted, practical, and immediately helpful to their daily work or a current challenging dilemma.

As a learner and teacher at heart, I continue to learn and thrive on the energy of others who strive to know more and improve their practice as educators. Through this research, I increased my own capacity to engage and teach principals about special education so they have a knowledge base solid enough to help them decipher problem areas and determine appropriate resources to help address their particular situation and most importantly, become better instructional leaders for all students.

And finally, invaluable personal insights I learned from my experience in LEEP and designing and creating *PULSE* are both authentic and philosophical: I am more similar to others than not; I am human and have strengths and weaknesses; I have limits and that's okay; I can ask for help when necessary, and; never underestimate the value of true grit and true friends.

Closing Thoughts

All students with disabilities deserve a principal who cares about their learning and achievement; a principal who understands the unique place special education holds within the school; and a principal who maintains the necessary skill and information to be an effective instructional leader. In the end, the two principals who participated in the *PULSE* workshop series showed a promising understanding and growth towards improved leadership in special education however the sustainability of their promise will remain an unanswered question. The *PULSE* workshop series can provide an evidenced based approach for addressing a significant challenge for elementary principals—to help them become engaged, attentive, and informed instructional leaders for all students in their school, including students with disabilities.

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"Leadership acts as a catalyst without which other good things are quite unlikely to happen."

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Leithwood, Harris, and Hopkins, 2008

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<center>**REFERENCES**</center>

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Appendix A:

PULSE Elementary Principal Structured Interview

1 = Not at All;   2 = Limited Extent;   3 = Not Sure;   4 = Some Extent;   5 = Great Extent

Principal prompt: To what extent…?

1. **Do you visit special education classrooms?**
   - Probing questions: With what frequency? Different/same compared to general education? What is important to look for? Tell me more about the visits…

2. **Do you feel you have adequate knowledge about special education?**
   - Probing questions: What level of knowledge would be sufficient? How did you learn about special education? Tell me more about this…

3. **Do you feel confident in solving difficult special education related problems?**
   - Probing questions: Tell me if and how confidence plays into these tasks? Tell me more about this…

4. **Do you think you have an open and collaborative relationship with the special education teachers at your school?**
   - Probing questions: Is this area important? Why? Tell me more about the relationships with special education teachers…

5. **Do you understand the unique differences between special education and regular education?**
   - Probing question: Is there a difference? Is this something to be concerned about in your school? Why? Tell me more about this area…

6. **Do you think you provide helpful feedback to special education teachers?**
   - Probing question: Tell me more about the feedback? How is it provided? How soon after your visit? Was it helpful? How did you know?

7. **Do you feel your contributions in IEP meetings are useful?**
   - Probing questions: What can you recall about a recent meeting? How did you know if it was useful? Tell me more about this…

8. **Can you identify some good special education practices?**
   - Probing questions: Tell me about some good practices? How did you learn this information? Is this area important for principals to know about?

9. **Do you know how to find resources for special education?**
   - Probing questions: Tell me more about finding resources… Whom do you contact and where do you go for information? Why is this important for principals?

PULSE Special Education Teacher Structured Interview

1 = Not at All;   2 = Limited Extent;   3 = Not Sure;   4 = Some Extent;   5 = Great Extent

Teacher Prompt: To what extent…?

1. **Does your principal visit special education classrooms?**
   - Probing questions: With what frequency? Different/same compared to general education? What is important to look for? Tell me more about the visits…

2. **Do you feel your principal has adequate knowledge about special education?**
   - Probing questions: How can you tell? Tell me what level of type of knowledge would be adequate for a principal? Tell me more about this…

3. **Do you feel your principal is confident in solving difficult special education related problems?**
   - Probing questions: Tell me if and how confidence plays into these tasks? Tell me more about this…

4. **Do you think your principal has an open and collaborative relationship with the special education teachers at your school?**
   - Probing questions: Is this area important? Why? Tell me more about the relationships with special education teachers…

5. **Does your principal understand the unique differences between special education and regular education?**
   - Probing question: Is there a difference? Is this something to be concerned about in your school? Why? Tell me more about this…

6. **Do you think your principal provides helpful feedback to special education teachers?**
   - Probing question: Tell me more about the feedback? How is it provided? How soon after your visit? Was it helpful? How did you know?

7. **Do you feel your principal's contributions in IEP meetings are useful?**
   - Probing questions: What can you recall about a recent meeting? How did you know if it was useful? Tell me more about this…

8. **Can your principal identify some good special education practices?**
   - Probing questions: Tell me about some good practices? How did you learn this information? Is this area important for principals to know about?

9. **Does your principal know how to find resources for special education?**
   - Probing questions: Tell me more about finding resources… Whom do you contact and where do you go for information? Why is this important for principals?

Appendix C: PULSE Special Education Classroom Tour Guide

PULSE: Special Education _Classroom Tour_ Guide
Suggested Checklist: Quality Factors to Inquire and Investigate

Things to Notice:

- ✓ Walk around the classroom and notice the organization from your perspective.

- ✓ Make a mental map of the room: desk or table set up; white board or smartboard use; computers and instructional technology accessible.

- ✓ As you scan the room and read the walls/boards, notice: posted homework info; what is there for student use and what is actually used.

- ✓ Identify where classroom textbooks are located in the room for core subjects like language arts, math, social studies and science? Are there enough for the students served?

- ✓ Presence of a visual and present behavior management system (whole class & individual)

Things to Inquire About:

- o Tell me about your classroom…how is it organized to support students across our K-5 grades?

- o How are the IEP records and assessments organized? Where may I find student IEP goals?

- o Inquire about a student's special education needs? How are goals followed and measured?

- o Inquire how assessment data is collected for baseline information about student learning? How about monitoring progress? What is the frequency of the progress monitoring?

- o How does the teacher ensure access to the general education curriculum for the students?

- o How often does the teacher communicate with general education teachers about the students that are shared?

- o For students who need help in reading and writing, inquire about the methodology and curriculum used to intervene?

- o Find out if the intervention material is researched based? Is there an "approval process from the school?"

- o How is the para-professional (aide) utilized in the classroom? Instructional support? Clerical?

- o How frequently does the special education teacher communicate with parents?

- o Inquire if there is something in particular that the principal could help with or be of support?

Appendix D: *PULSE* Classroom Observation Protocol for use in Special Education Classrooms

Teacher:	Grade level of students (indicate how many in each grade): K 1 2 3 4 5	# of students present in classroom:	o **Individual student work** o **Small group work (2-3)** o **Larger group work (4, 5, 6)**
Time started: _____	Time completed: _____Middle _____End		Lesson: _____Beginning

Essential Practices of Quality Teaching – Special Education

Behavioral supports and routines: Teachers use visual/verbal cues to prompt routines for expected student behaviors during instruction; acknowledgement of student appropriate behavior more frequently than inappropriate behavior; strategies used such as scanning student work, interacting frequently with students and purposeful movement (e.g. proximity, control); monitor movement and routines that lead to extensive and effective time on task for students. Classroom expectations are present and there is evidence of a behavior reinforcement system in place.	**Classroom organization and accessibility:** Classroom space is well organized; students can be seen and heard by teachers; instructional space is adequate for staff and students to move throughout the classroom; equipment is adapted, as appropriate for K-5 students. Accommodations are provided to students, as appropriate per IEP. Student work is accessible and displayed. Are there clear areas for student work to be stored and for homework?	**Ongoing assessment:** use of formative assessment is consistently conducted of students' work at various points of the lesson (before, during, and after) and, as appropriate; consideration of individual student IEP goals; ongoing feedback to students about progress	**Appropriate materials:** Presence of core instructional material and appropriate technology; range of material differentiated for beginning, intermediate and advanced individuals; students and teachers have necessary materials at hand; students have materials in accessible formats, as appropriate. Materials adapted/modified, as appropriate to meet individual student needs. Use of instructional/assistive technology available as appropriate to meet individual student needs.
Positive classroom climate: Teachers and aide model positive statements about others; use activities designed to ensure positive staff and peer interactions; make explicit statements to encourage students to accomplish the stated objective. Positive behavioral statements may be posted. Teachers remind students of	**Instruction and engagement:** Teachers provide direct instruction of targeted skills; introduce lessons, including reference to content of previous lessons, objectives, purpose for the content and strategies to be taught. Teachers check for understanding and students demonstrate understanding; teachers actively teach vocabulary, content and strategies; Adults use appropriate wait time for	**Alignment to instructional core**: Clearly defined grade level/content expectations; all students are working on content aligned with the content of their grade level.	**Access to adult support when needed**: Teacher and aide appropriately respond to questions and use defined system for students seeking help. There is adequate opportunity for students to receive direct instruction from trained adults (teacher/aide). There is natural ebb and flow of support from adults to students and transition down time is kept to a minimum.

| expectations; acknowledge student demonstrations of appropriate behavior. Individualized behavioral supports are provided, as appropriate. | student responses; Concepts are retaught or reviewed if responses are inaccurate. Teachers use guided practice of content/strategies; model learning strategies; foster independent practice of content/strategies; and appropriately close lessons. Material used for skill building is researched-based and instructional format includes period and predictable progress monitoring.

Students are engaged and monitoring; students are self-correcting own work, understand the goals of each task, and may work with other students as partners or in groups as appropriate. | | |

Provide evidence below of how the indicators from matrix above are occurring in the classroom with teachers and students:	
Behavioral supports/routines (What is the teacher doing/saying):	**Behavioral supports/routines (What are the students doing/saying):**
Positive classroom climate (What is the teacher doing/saying):	**Positive classroom climate (What are the students doing/saying):**

Classroom organization/accessibility (What is the teacher doing/saying):	Classroom organization/accessibility: (What are the students doing/saying):
Instruction and engagement (What is the teacher doing/saying):	Instruction and engagement (What are the students doing/saying):
Ongoing assessment (What is the teacher doing/saying):	Ongoing assessment (What are the students doing/saying):
Alignment to instructional sequence (What is the teacher doing/saying):	Alignment to instructional sequence (What are the students doing/saying):
Appropriate materials (What is the teacher doing/saying):	Appropriate materials (What are the students doing/saying):

Access to adult support when needed (What is the teacher doing/saying):	Access to adult support when needed (What are the students doing/saying):

Summary of PULSE Classroom Observation/Visit: Notes for Feedback Session with the Teacher	
Highlight items from Matrix 2 regarding instruction and student engagement /attending skills:	**Highlight items from Matrix 2 regarding classroom organization and student behavior:**
Behaviors that were clearly present – teacher focus:	**Behaviors that were clearly present – student focus:**
Follow-up for the principal:	**Follow-up for the teacher:**

Appendix E:

PULSE Session 4: Legislative Analyst's Office Summary Charting Debrief

WHAT I LEARNED ABOUT…	WHY IS THIS IMPORTANT?	HOW IMPORTANT IS THIS FOR MY JOB?

Appendix F: Special Education Acronyms and Glossary of Terms**
                Common Acronyms and Terms Used in Special Education in California

Acronym	**Meaning**
504	Section 504 of the Rehabilitation Act
ADA	Americans with Disabilities Act
ADR	Alternative Dispute Resolution
ALJ	Administrative Law Judge
AT	Assistive Technology
CAC	Community Advisory Committee on Special Education
CASE	Community Alliance for Special Education
CCS	California Children's Services
CDE	California Department of Education
CDC	California Diagnostic Centers
CAHSEE	California High School Exit Exam
DIS	Designated Instruction and Services
DOE	U.S. Department of Education
DOR	Department of Rehabilitation
DREDF	Disability Rights Education and Defense Fund
FAPE	Free and Appropriate Public Education
FERPA	Family Educational Rights and Privacy Act
IDEA	Individuals with Disabilities Education Act
IEE	Independent Educational Evaluation
IEP	Individualized Educational Program
IFSP	Individualized Family Service Plan
IPP	Individual Program Plan (Regional Center)
LEA	Local Education Agency
LRE	Least Restrictive Environment
NCLB	No Child Left Behind
OAH	Office of Administrative Hearings
OCR	U.S. Office for Civil Rights
OEO	Office of Equal Opportunity / CDE
OSEP	U.S. Office of Special Education Programs / DOE
OSERS	U.S. Office of Special Education and Rehabilitation Programs
OT/PT	Occupational Therapy/Physical Therapy
PAI	Protection and Advocacy, Inc.
PSRS	Procedural Safeguards and Referral Services / CDE
PTI	Parent Training and Information Center
PWN	Prior Written Notice
RSP	Resource Specialist Program
SDC	Special Day Class
SELPA	Special Education Local Plan Area
SERR	Special Education Rights and Responsibilities
SLP	Speech Language Pathologist
SPED	Special Education

Glossary of Terms	**Term Meaning**
Accommodation	A change in curriculum or instruction that does not substantially modify the requirements of the class or alter the content standards or benchmarks.
Adapted Physical Education (APE)	A diversified program of developmental activities, games, sports, and rhythms suited to the interests, capabilities and needs of students with disabilities who may not successfully engage in a regular physical education program.
Administrative Law Judges (ALJs)	Judges provided by OAH to conduct Due Process Hearings in a manner similar to civil court trials. They are neutral fact-finders, fully independent of the agencies whose attorneys appear before them.
Alternative Dispute Resolution (ADR)	Alternative opportunities for parties to resolve disputes collaboratively and avoid litigation, typically through negotiation, mediation, or arbitration.
Assessment	Any systematic method of obtaining information from tests and other sources; used to draw inferences about characteristics of people, objects, or programs. An initial evaluation (or periodic re-evaluation) to determine whether a child is a child with a disability and to determine the educational needs of this child.
Assistive Technology (AT) Device	Any piece of equipment used to increase, maintain, or improve functional capabilities of individuals with disabilities.
Assistive Technology (AT) Service	Any service that directly assists an eligible individual in selecting, acquiring, or using an assistive technology device.
California Diagnostic Center (CDC)	California Diagnostic Centers in Fremont, Fresno and Los Angeles serve northern, central and southern CA to provide no cost assessment and educational planning services. Requests for services must be generated by referral from the school district.
Compliance Complaint	A formal assertion in writing that agreed upon services and supports in an IEP have not been delivered, or that the school district has violated IDEA mandates.
Curriculum	The subject matter that is to be learned, usually described in terms of scope and sequence.
Curriculum-based Assessment	A methodology in special education in which a child's progress in the curriculum is measured at frequent intervals.
Due Process	In general, a course of legal proceedings according to rules and principles established for enforcement and protection of private rights. Essential components of due process are "notice" and "a meaningful opportunity to be heard."
Due Process Hearing	The formal, legal procedure guaranteed by federal law to resolve disputes relating to the education of IDEA-eligible children with disabilities to ensure that each receives a free and appropriate public education (FAPE) tailored to his/her unique needs.
Extended School Day	A provision for a special education student to receive instruction for a period longer than the standard school day.
Extended School Year (ESY)	A provision for a special education student to receive instruction during ordinary school vacation periods.
Facilitated IEP	A group leadership process in which a trained individual helps keep the IEP discussion focused on your student and the education issues.
Family Educational Rights and Privacy Act (FERPA)	A federal law that regulates the management of student records and disclosure of information from those records, with its own administrative enforcement mechanism.
Free Appropriate Public Education (FAPE)	Special education and related services are provided to students with disabilities at public expense and under public supervision and direction at no cost to the student's parents.
Functional Analysis Assessment (FAA)	An evaluation process to understand the purpose, motivation, and correlates of challenging behavior(s) in order to develop a positive and appropriate Behavior Intervention Plan (BIP), instructional supports and services.

Functional Curriculum (Life Skills Curriculum)	A curriculum focused on practical life skills and usually taught in community-based settings with concrete materials that are a regular part of everyday life.
Goals and Objectives	A written component of an IEP: skills the student is expected to reasonably achieve in one year maximum (reviewed and re-evaluated by the IEP team at least annually).
Inclusion [or] Inclusive Education	A belief that every student is entitled to an instructional program that meets his or her individual needs and learning characteristics; a commitment to build and maintain an assured sense of belonging for all students, regardless of strengths or challenges.
Independent Educational Evaluation (IEE)	An independent evaluation of a student from a qualified person. Parents have the right to ask for and obtain an IEE if they disagree with the results of an assessment conducted by the school district. Any IEE must be considered at the IEP.
Individuals with Disabilities Education Act (IDEA)	Federal law that entitles students with disabilities to special education services.
Individualized Education Program (IEP)	The annually written record of an eligible individual's special education and related services, describing the unique educational needs of the student and the manner in which those educational needs will be met.
IEP Meeting	A gathering required at least annually under IDEA in which an IEP is developed for a student receiving special education.
IEP Team (Minimum Required Members)	Parent or legal Surrogate; Student, when necessary; one general education and one special education teacher both responsible for implementing the IEP; school district representative qualified to provide/supervise provision of specialized instruction, knowledgeable about the general curriculum and the resources of the district. (CA law requires this be someone other than the child's teacher); Person(s) who conducted assessment(s) or knowledgeable enough to explain/interpret the results; People with specific expertise or knowledge of the student. (Optional: Attorneys or advocates)
Individualized Family Service Plan (IFSP)	A written plan for providing early intervention services to an eligible child with a disability (from birth to 3rd birthday) and to the child's family.
Insufficient	Not meeting the legal requirement of IDEA by failing to provide the necessary detailed information and evidence to support a Due Process Complaint.
Least Restrictive Environment (LRE)	A federal mandate stipulating that, to the maximum extent possible, students with disabilities be educated with their non-disabled peers.
Local Education Area (LEA)	A school district.
Mainstreaming	This lay term doesn't appear in law. It refers to IDEA's preference for the education of every child in the least restrictive environment (LRE); most widely refers to placement of students with disabilities in general education, rather than segregated, classrooms.
Mediation (Mediation-Only)	A voluntary alternative dispute resolution (ADR) process that may be requested PRIOR to filing a Due Process Complaint. It is not a prerequisite to filing.
Mediation (Formal Due Process)	A voluntary alternative dispute resolution (ADR) process that may occur AFTER a Due Process Complaint is filed. Office of Administrative Hearing (OAH) provides mediators.
Modification	A change in curriculum or instruction that substantially alters the requirements of the class or its content standards or benchmarks.
Office for Civil Rights (OCR)	An agency of the federal government's executive branch within the Department of Education that is charged with enforcing a number of civil rights statutes.
Office of Equal Opportunity (OEO)	An office within the CA Dept. of Education to advise the State Superintendent of Public Instruction, CDE staff, and the State Board of Education on legal matters to ensure equal, fair, and meaningful access to its employment and program services.
Office of Special Education Programs (OSEP)	An office within OSERS (see below) charged with assuring that the various states comply with IDEA.
Office of Special	An agency of the federal government's executive branch within the Department of

Education and Rehabilitative Services (OSERS)	Education (DOE).
Parent Training and Information Center (PTI)	The designated agency that offers workshops and training on special education rights and responsibilities in a parent's locale.
Placement	The unique combination of facilities, personnel, location or equipment necessary to provide instructional services to meet the goals as specified in the student's IEP. Placement is a set of services, not a location.
Prior Written Notice (PWN)	A notice supplied to the other party that includes a description of the action proposed or refused by the school district or by the parent.
Procedural Safeguards and Referral Services (PSRS)	An office of the CA Dept. of Education (CDE) that provides technical assistance and resources about procedural safeguards and educational rights of students with disabilities, from ages 3 up to 22nd birthday. Compliance Complaints are filed here.
Related Services [aka] Designated Instruction and Services (DIS) in CA	Services required to assist an individual with disabilities to benefit from special education, including but not limited to: transportation, occupational therapy, physical therapy, speech and language therapy, mental health services, and medical care.
Resolution Meeting	A meeting mandated in IDEA 2004 as part of the Due Process Complaint process where parties attempt to resolve a dispute prior to proceeding to a Due Process Hearing.
Special Education (SPED)	Specially designed instruction, at no cost to parents, to meet the unique needs of an eligible individual, including the specially designed instruction conducted in schools, in the home, in hospitals and institutions, and in other settings. Special education provides a continuum of services in order to provide for the education needs of each eligible individual regardless of the nature or severity of the educational needs.
Special Education Local Plan Area (SELPA)	A consortium of school districts, within a geographical service area, responsible for ensuring that every child eligible for special education receives appropriate services. Each SELPA's Local Plan, based on Federal and California law and regulations, describes how special education services are provided.
Sufficiency	Meeting the legal requirement of IDEA in providing the necessary detailed information and evidence to support a due process complaint.
Stay Put	The ruling that permits a student to remain in their current placement during any dispute concerning special education services.
Transition Plan	A plan to coordinate a set of activities that promote movement from school to post-school education, vocational training, integrated employment (including supported employment), continuing and adult education, adult services, independent living, or community participation. Transition goals are determined by the IEP team beginning at least by age 16 and are based on student and family vision, preferences, and interests.

**Source: Disability Rights Education & Defense Fund (2010)

Appendix G: District Superintendent Initial Phone Inquiry Regarding Research Study

UNIVERSITY OF CALIFORNIA, BERKELEY

BERKELEY · DAVIS · IRVINE · LOS ANGELES · MERCED · RIVERSIDE · SAN DIEGO · SAN FRANCISCO ⬤ ANTA BARBARA · SANTA CRUZ

DISTRICT SUPERINTENDENT INITIAL PHONE INQUIRY
REGARDING RESEARCH STUDY:

Principals Utilizing Leadership for Special Education: *The PULSE Model*
for improving the practice of instructional leadership for special education

Student Investigator:	Brian Inglesby, Candidate for Ed.D.
Faculty Advisor:	Professor Heinrich Mintrop, Ph.D.
Institution:	University of California, Berkeley

Script for Superintendent initial telephone contact:

Hi Superintent_____,

My name is Brian Inglesby and I am currently a graduate student in the Leadership for

Educational Equity Program (LEEP) at the University of California, Berkeley. I am conducting

research under the supervision of Dr. Heinrich Mintrop, Graduate School of Education. The

purpose of my call is to determine if you think your district might have two elementary

principals and their respective special education teachers who would be interested in

participating in a research study on principal professional development. As part of my study, I

will provide a 10-hour workshop sequence for the two principals focused on special education

instructional leadership. The participation of special education teachers would be minimal

whereby I would conduct a 20 minute interview (pre and post) with them. I would be more than

happy to schedule a meeting with you and tell you more about my research and answer any

questions you may have. Your support with this project would be greatly appreciated. Thank you

for your time and interest in my research.

My contact information is:
Brian Inglesby
415-377-8636

Appendix H: Principal Initial Phone Inquiry Regarding Research Study

UNIVERSITY OF CALIFORNIA, BERKELEY

BERKELEY · DAVIS · IRVINE · LOS ANGELES · MERCED · RIVERSIDE · SAN DIEGO · SAN FRANCISCO   SANTA BARBARA · SANTA CRUZ

PRINCIPAL INITIAL PHONE INQUIRY
REGARDING RESEARCH STUDY:

Principals Utilizing Leadership for Special Education: *The PULSE Model*
for improving the practice of instructional leadership for special education

Student Investigator:	Brian Inglesby, Candidate for Ed.D.
Faculty Advisor:	Professor Heinrich Mintrop, Ph.D.
Institution:	University of California, Berkeley

Script for principal initial telephone contact:

Dear Principal _____,

My name is Brian Inglesby and I am currently a graduate student in the Leadership for Educational Equity

Program (LEEP) at the University of California, Berkeley. I am conducting research under the supervision of Dr.

Heinrich Mintrop, Graduate School of Education. I am seeking the support of two principals who may have

interest in participating in a research study focused on principal professional development in special education.

Your superintendent has approved of me conducting a study in the district. As part of the study, I will provide a

10-hour workshop for the principals focused on special education instructional leadership. In addition, I will be

asking the principal participants to play a part as co-designers of the study whereby their constructive feedback

about the structure of the study and workshop activities may be incorporated into the ongoing design process. In

addition to your potential voluntary participation, I will be seeking the involvment of special education teachers in

your school to take part in an interview about special education leadership. I would be more than happy to

schedule a meeting with you and tell you more about my research and answer any questions you may have. Your

support with this project would be greatly appreciated and of course you are free to decline to participate as well.

Thank you for your time.

My contact information is:
Brian Inglesby
415-377-8636

Appendix I: Special Education Teacher Initial Phone Inquiry Regarding Research Study

UNIVERSITY OF CALIFORNIA, BERKELEY

BERKELEY · DAVIS · IRVINE · LOS ANGELES · MERCED · RIVERSIDE · SAN DIEGO · SAN FRANCISCO   SANTA BARBARA · SANTA CRUZ

SPECIAL EDUCATION TEACHER INITIAL PHONE INQUIRY REGARDING RESEARCH STUDY:

Principals Utilizing Leadership for Special Education: *The PULSE Model for improving the practice of instructional leadership for special education*

Student Investigator: Brian Inglesby, Candidate for Ed.D.
Faculty Advisor: Professor Heinrich Mintrop, Ph.D.
Institution: University of California, Berkeley

Script for special education teacher initial telephone contact:

Hello Special Education Teacher _____.

My name is Brian Inglesby and I am currently a graduate student in the Leadership for Educational Equity Program (LEEP) at the University of California, Berkeley. I am conducting research under the supervision of Dr. Heinrich Mintrop, Graduate School of Education. I am seeking the support of special education teachers to possibly take part in a research study focused on principal professional development. Your principal has agreed to allow me to conduct my study in the school. As part of my study, I would like to interview special education teachers about special education leadership. In addition to your potential voluntary participation, I will be seeking the participation of the school principal as well. I would be more than happy to schedule a meeting with you and tell you more about my research and answer any questions you may have. Your support with this project would be greatly appreciated and of course you are free to decline to participate as well. Thank you for your time.

My contact information is:

Brian Inglesby
415-377-8636

Appendix J: Principal Informed Consent to Participate in Research Study

UNIVERSITY OF CALIFORNIA, BERKELEY

BERKELEY · DAVIS · IRVINE · LOS ANGELES · MERCED · RIVERSIDE · SAN DIEGO · SAN FRANCISCO   SANTA BARBARA · SANTA CRUZ

PRINCIPAL INFORMED CONSENT TO PARTICIPATE IN RESEARCH STUDY:

Principals Utilizing Leadership for Special Education: *The PULSE Model*
for improving the practice of instructional leadership for special education

Student Investigator:	Brian Inglesby, Candidate for Ed.D.
Faculty Advisor:	Professor Heinrich Mintrop, Ph.D.
Institution:	University of California, Berkeley

Background information:
The purpose of this research study is to implement a 10-hour professional development sequence that will help principals in the area of special education leadership within their school. The professional development content is meant to be very practical and immediately relevant for busy principals.

Procedures:
I will meet with you periodically to conduct the workshop and administer a questionnaire/interview protocol both before and at the end of the 10–hour workshop series. I will also observe you visit special education classroom and debrief those visits with your teachers. With your permission, I will audiotape and take notes during the interview. The recording is to accurately record the information you provide, and will be used for transcription purposes only. If you choose not to be audiotaped, I will take notes instead. If you agree to being audiotaped but feel uncomfortable at any time during the interview, I can turn off the recorder at your request. Or if you don't wish to continue, you can stop the interview at any time. In addition, I will ask you to play a role as co-designer of the study and provide me with constructive feedback about the structure of the study and workshop activities that could potentially be incorporated into the ongoing design process. The special education teachers at your school will also be asked to voluntarily participate in a before-and-after questionnaire/interview protocol similar to the one you will complete. The time frame for the workshop series, observation, and interview process will occur over a 3-4 month period.

Study time and schedule:
Study participation will take a total of approximately 13 hours over the course of 3-4 months. Workshop and interview sessions will be scheduled in advance with you at a mutually convenient time that will minimize interruptions to your daily work schedule.

Study location:
All study procedures will take place at your school office or office of another principal within your district.

Possible risks or benefits:
Precautions will be taken to minimize risk, however, as with all research, there is a chance that confidentiality could be compromised. In addition, some principals may experience discomfort during the observational de-brief I conduct with them. There are no direct benefits to participants. Indirect benefits may be that you will have an opportunity to enhance your professional practice regarding special education leadership in your school.

Right of refusal to participate and withdrawal:
Participation in research is completely voluntary. You are free to decline to take part in the project. You can decline to answer any questions and are free to stop taking part in the project at any time. Whether or not you choose to participate in the research and whether or not you choose to answer a question or continue participating in the project, there will be no penalty to you or loss of benefits to which you are otherwise entitled.

CPHS Protocol ID: 2012-12-4878

Confidentiality:
The information provided by you will remain confidential. Information will be stored on a password-protected computer and observational notes/interviews will be stored securely in a locked file cabinet in a locked office at UCB. No individual except the student investigator and UCB faculty advisor will have access to it. When writing the report of this study your name and identity will not be disclosed at any time. The data collected over the course of the study may be seen by an ethical review committee and may be published in a journal or elsewhere without giving your name or disclosing your identity. Information/data will not be shared with teachers.

Questions:
If you have any questions or concerns about this study, please contact me: Brian Inglesby at (415) 377-8636 or at inglesby_brian@yahoo.com. If you have any questions or concerns about your rights and treatment as a research subject, you may contact the office of UC Berkeley's Committee for the Protection of Human Subjects, at 510-642-7461 or subjects@berkeley.edu. You may also contact my faculty sponsor, Dr. Heinrich Mintrop, at UC Berkeley. His e-mail is mintrop@berkeley.edu.

Consent:
You will be given a copy of this consent form to keep for your own records. If you wish to participate in this study, please sign and date below.

Principal Participant's Name: _____   Date: _____

Principal Participant's Signature: _____   Date: _____

Student Investigator's Signature: _____   Date: _____

Appendix K: Special Education Teacher Informed Consent to Participate in Research Study

UNIVERSITY OF CALIFORNIA, BERKELEY

BERKELEY · DAVIS · IRVINE · LOS ANGELES · MERCED · RIVERSIDE · SAN DIEGO · SAN FRANCISCO   SANTA BARBARA · SANTA CRUZ

SPECIAL EDUCATION TEACHER INFORMED CONSENT TO PARTICIPATE IN RESEARCH STUDY:

Principals Utilizing Leadership for Special Education: *The PULSE Model*
for improving the practice of instructional leadership for special education

Student Investigator: Brian Inglesby, Candidate for Ed.D.

Faculty Advisor: Professor Heinrich Mintrop, Ph.D.

Institution: University of California, Berkeley

Background information:
The purpose of this research study is to implement a 10-hour professional development sequence that will help principals in the area of special education leadership within their school.

Procedures:
I will meet with you to administer a questionnaire/interview protocol both before and at the end of the 3-4 month period of the study implementation process. There will be two occasions that I will observe your principal providing post-classroom visit feedback with you as well. With your permission, I will audiotape and take notes during the feedback session. The recording is to accurately record the information you provide, and will be used for transcription purposes only. If you choose not to be audiotaped, I will take notes instead. If you agree to being audiotaped but feel uncomfortable at any time during the interview, I can turn off the recorder at your request. Or if you don't wish to continue, you can stop the interview at any time. As the 3-4 month intervention process progresses, your principal will be participating in a 10–hour principal workshop focused on special education leadership. Your principal's participation in this study is voluntary as well.

Study time and schedule:
Study participation will take a total of approximately 2 hours over the course of 3 to 4 months. Interview and feedback sessions will be scheduled in advance with you at a mutually convenient time that will minimize interruptions to your daily work schedule.

Study location:
All study procedures will take place at your school classroom or office within your school.

Possible risks or benefits:
Precautions will be taken to minimize risk, however, as with all research, there is a chance that confidentiality could be compromised. There are no direct benefits to participants. Indirect benefits may be that you will have an opportunity to enhance the professional practice regarding special education leadership in your school.

Right of refusal to participate and withdrawal:
Participation in research is completely voluntary. You are free to decline to take part in the project. You can decline to answer any questions and are free to stop taking part in the project at any time. Whether or not you choose to participate in the research and whether or not you choose to answer a question or continue participating in the project, there will be no penalty to you or loss of benefits to which you are otherwise entitled.

Confidentiality:
The information provided by you will remain confidential. Information will be stored on a password-protected computer and observational notes/interviews will be stored securely in a locked file cabinet in a locked office at UCB. No individual except the student investigator and UCB faculty advisor will have access to it. When writing the report of this study your name and identity will not be disclosed at any time. The data collected over the course of the study may be seen by an ethical review committee and may be published in a journal or elsewhere without giving your name or disclosing your identity. Information/data will not be shared with your principal.

CPHS Protocol ID: 2012-12-4878

Questions:
If you have any questions or concerns about this study, please contact me: Brian Inglesby at (415) 377-8636 or at inglesby_brian@yahoo.com. If you have any questions or concerns about your rights and treatment as a research subject, you may contact the office of UC Berkeley's Committee for the Protection of Human Subjects, at 510-642-7461 or subjects@berkeley.edu. You may also contact my faculty sponsor, Dr. Heinrich Mintrop, at UC Berkeley. His e-mail is mintrop@berkeley.edu.

Consent:
You will be given a copy of this consent form to keep for your own records. If you wish to participate in this study, please sign and date below.

Teacher Participant's Name: _____   Date: _____

Teacher Participant's Signature: _____   Date: _____

Student Investigator's Signature: _____   Date: _____

Appendix L: Dimensions, Potential Indicators, Code, Related Prompt & Probing Questions

Dimension	Potential Indicators	Code	Related Prompt and follow-up Questions
Principal Efficacy	Principal less reluctant to visit special education classrooms; Principal increases frequency of visits to special education classrooms	CVI	• Prompt: Do you visit special education classrooms? • Probing questions: With what frequency? Different/same compared to general education? What is important to look for? Tell me more about the visits…
	Principal expresses satisfaction regarding their participation and experience in IEP meetings; Teacher indicates that principal has positive contributions to IEP meetings	IEP	• Prompt: Do you feel your contributions in IEP meetings are useful? • Probing questions: What can you recall about a recent meeting? How did you know if it was useful? Tell me more about this…
	Attitude shift as expressed by principal regarding their confidence and comfort level in addressing special education issues	CON	• Prompt: Do you feel confident in solving difficult special education related problems? • Probing questions: Tell me if and how confidence plays into these tasks? Tell me more about this…
Cultural Proficiency	Understand factors related to uniqueness of special education; addresses teacher PD; considers teacher working conditions and potential isolation issues	UNI	• Prompt: Do you understand the unique differences between special education and regular education? • Probing question: Is there a difference? Is this something to be concerned about in your school? Why? Tell me more about this area…
	Principal begins regular communication with special education teacher in addition to classroom visits.	COL	• Prompt: Do you think you have an open and collaborative relationship with the special education teachers at your school? • Probing questions: Is this area important? Why? Tell me more about the relationships with special education teachers…
	Identifies network of specialists to consult; has understanding about continuum support options available within the school, district, county	RES	• Prompt: Do you know how to find resources for special education? • Probing questions: Tell me more about finding resources… Whom do you contact and where do you go for information? Why is this important for principals?
	Provides information, guidance regarding special education, e.g. curricula, various methodologies, assessment practices, disabilities,	KNW	• Do you feel you have adequate knowledge about special education? • Probing questions: What level of

Technical Competency	compliance/legal issues, teaching and behavioral practices		knowledge would be sufficient? How did you learn about special education? Tell me more about this…
	Principal is familiar with: differentiated instruction; understand the range of students who receive support in special education classroom	PRC	• Prompt: Can you identify some good special education practices? • Probing questions: Tell me about some good practices? How did you learn this information? Is this area important for principals to know about?
	Provides feedback that is specific to the special education classroom context e.g. comment on use of differentiation, direct instruction lesson, order and structure of instructional setting, use of adult aide, behavior reinforcement system, progress monitoring system.	FDB	• Prompt: Do you think you provide helpful feedback to special education teachers? • Probing question: Tell me more about the feedback? How is it provided? How soon after your visit? Was it helpful? How did you know?