FROM PARA-EDUCATORS TO VETERAN MASTER TEACHERS:
EVALUATION OF SPECIAL EDUCATORS’ PERCEIVED EXPERIENCES OF
SCHOOL AND UNIVERSITY PARTNERSHIP PROGRAMS

By
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Abstract

The increasing demands for special education teachers (SETs) are often greater than the supply of qualified SETs who are willing and able to accept teaching positions. Partnership programs that recruit non-traditional teacher candidates, provide extensive training and mentoring, and facilitate supportive working conditions often provide a cost-effective strategy for recruiting, preparing, and retaining special educators committed to the field. This study builds on previous research by investigating what partnership program features, mentoring and induction activities, and district procedures are more predictive of special educators’ career intentions across career phases. The study used a mixed-methods research design to quantify and analyze relationships between participants’ perspectives of program features and their career intentions. Participants completed a partnership preparation program that trained paraeducators using a cohort model while completing their Master’s degrees in special education. Results suggest that the program’s location and length helped to recruit them, coursework and field experiences contributed to their preparation, and school administrators’ support helped to retain them for an average of nine years. The paper concludes by discussing recommendations for future special education teacher preparation programs and next steps for teacher preparation research.
This dissertation, “From Para-Educators to Veteran Master Teachers: Evaluation of Special Educators’ Perceived Experiences of School District and University Partnership Programs” has been approved by the Faculty of the School of Education in partial fulfillment of the requirements for the degree of Education Doctorate (Ed.D.).

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CHAPTER ONE

INTRODUCTION

The increasing demands for special education teachers (SETs) are often greater than the supply of qualified SETs who are willing and prepared to accept teaching positions. Efforts by teacher preparation programs have continued to address the chronic shortage of SETs available to fill all teaching positions in special education (Boe, 2014). In addition, recent legislation (Individuals with Disabilities Education Improvement Act [IDEA], 2004; Race to the Top Fund [RTTF], 2009) requires states to recruit “qualified” teachers. Teacher quality factors add additional challenges to school district personnel seeking to fill their open special education teacher positions. These include (a) equitable distribution of SETs (Cook & Boe, 2007); (b) attrition and retention of SETs (Boe, 2014); and (c) educational outcomes for students with disabilities (Feng & Sass, 2013).

Partnerships have developed over the years between local school districts and teacher preparation programs to recruit individuals (e.g., career changers) into special education teacher certification pathways. Recent evaluations suggest that differences between programs’ requirements may translate to differences in teacher quality (Billingsley, Crockett, & Kamman, 2014; Rosenberg, Boyer, Sindelar, & Misra, 2007).

This chapter discusses the legislative, political, and economic contexts in which the twenty-first-century special education teaching force must become prepared and qualified to meet the diverse needs of over six million children with disabilities in K-12 public schools. The discussion includes the changing demand for SETs and lessons learned from research on recruiting and retaining SETs. The purpose of this study is to investigate the extent to which partnerships between local school districts and higher
education teacher preparation programs have assisted in alleviating some of the challenges of maintaining a qualified special education teaching force.

**Education Policies and Implications**

The term *qualified special education teacher* is evolving as legislators and researchers collaborate to develop an effective teaching force. The No Child Left Behind Act (NCLB, 2002) introduced the idea of *qualified* by requiring schools that receive federal funding to employ only *highly qualified* teachers. Highly qualified teachers hold full state certification and pass competency exams. Middle and high school special education teachers were often encouraged to hold additional certifications in content areas for which they were the teacher of record (NCLB, 2002). Since the enactment of NCLB, Boe (2006) suggested there was a ten-percent shortage of highly qualified special education teachers in the workforce. Despite the known teacher shortage, legislators supported standards for special education teachers in IDEA (2004) by continuing the use of the definition for highly qualified from NCLB (2002). According to Boe (2014), over the past decade, the shortage of highly qualified special educators was reduced to six percent. The recent passage of the Every Student Succeeds Act (ESSA, 2015) removed the *highly qualified* requirement, and encouraged states to provide alternative routes to SET certification.

IDEA (2004) addressed the SET’s shortage by encouraging states to develop alternative routes to certification by providing an opportunity for career changers with Bachelor’s degrees to be hired conditionally until they obtained full licensure. Unfortunately, research suggests that this quick fix and the standards for licensure, according to NCLB (2002) and IDEA (2004) are not indicative of effective teaching
(United States Department of Education, 2012). According to research, SETs with extensive coursework, field experiences, and mentoring reported higher self-efficacy and remained in the field longer than SETs with less preparation (Billingsley, 2004a; Boe, 2014; Rosenberg et al., 2007).

Recent political discussions to reauthorize IDEA (2004) and the Higher Education Opportunity Act (HEOA, 2008) have begun to shape new standards for teacher quality and preparation. The ESSA (2015) shifted accountability from teachers earning credentials to states evaluating new teachers’ effectiveness. High-needs schools seeking federal funding risk failing accountability evaluations because they tend to hire minimally prepared novice teachers. These policies challenge research findings by suggesting that special educators may be able to provide effective services to students with disabilities without training or earned credentials that would prepare them for success. Concerned researchers preparing for the reauthorization of IDEA (2004) support legislative requirements such as pre-service field experiences and dual certification of teachers in elementary, middle, or secondary content areas and special education (National School Board Association, 2014; Pugach & Blanton, 2012).

The Race to the Top Fund was established to invest $4.35 billion dollars for improving teacher quality for high needs students (defined as students with disabilities, living in poverty, and learning English). Two priorities for Race to the Top (2009) funds included (a) establishing statewide data systems, accessible to researchers that track teachers and their high needs students’ performance; and (b) continuing alternative routes to certification programs. Though thousands of commenters requested revisions to the law regarding teacher preparation, the controversy did not lead to changes. In fact, a
public debate between advocates of alternative teacher preparation programs and university-based traditional programs continues as states develop evaluation programs and report results in their data systems (Cochran-Smith, Cannady, McEachern, Piazza, Power, & Ryan, 2011; Race to the Top, 2009).

In preparation for the reauthorization of the Higher Education Opportunity Act (2008), the United States Department of Education (USDE) and leaders in the field of teacher preparation debated proposed indicators of effective programs. The USDE established the Teacher Preparation Issues Committee, comprised of representatives from all stakeholders, including teacher educators from public and private universities, for-profit institutions, alternative-route programs (e.g., Teach for America), education agencies, parents, and students. Committee members reviewed and revised regulations. These debates have invited public comment on the federal Teacher Preparation Issues Proposed Rules (2014) which will determine the use of federal rewards for TEACH grants provided to pre-service teachers of high-needs students, including students with disabilities.

The new regulations propose funding pre-service teachers’ preparation based on programs’ evaluation scores, and that each teacher preparation program within a university must report its outcomes separately. These rules will influence special education programs that have historically been small programs within larger schools of education with multiple preparation programs (e.g., elementary, secondary, content area, arts). Special education programs will be evaluated based on nine quality indicators. These include (a) associated student learning outcome results, (b) teacher placement results, (c) teacher retention results, (d) teacher placement rate in high-needs schools, (e)
teacher retention rate in high-needs schools, (f) teacher satisfaction survey results, (g) employers’ satisfaction survey results, (h) candidates’ content area knowledge, and (i) rigorous entry and exit standards (Teacher Preparation Issues Proposed Rules, 2014, p. 59).

Controversy over the proposed law’s evaluation criteria has emerged regarding ideological differences between special interest groups and researchers. For example, basing evaluations on survey results, competency exams, and entry standards reflect the ideologies of special interest groups, such as the National Council on Teacher Quality (NCTQ) (Darling-Hammond, 2013; Fuller, 2013). The NCTQ functions as an advocacy group whose mission includes providing an alternative view to traditional teacher preparation, and is funded by private organizations, such as the Bill and Melinda Gates Foundation (see NCTQ, 2015). The NCTQ receives criticism due to a lack of experimental procedures used for their reported findings, and the perpetuation of the notion that traditional teacher preparation programs are not necessary (Darling-Hammond, 2013; Fuller, 2013). On the other hand, the Coalition for Teaching Quality (CTQ) promotes “profession-ready teachers” who “demonstrate through clinical practice, residency, passage of a performance assessment, and full licensure by the state that he or she is ready to serve as a teacher of record,” (CTQ, 2014, p.2). CTQ represents organizations such as the Council for Exceptional Children, whose members include educational researchers and practitioners. In the absence of rigorous research to evaluate alternative and traditional teacher preparation programs, economic and political agendas continue to drive variable teacher preparation programs and standards of effective
teaching (Cochran-Smith et al., 2011; United States Government Accountability Office, 2009).

**Preparation Program Differences**

Traditional and alternative teacher preparation programs attract career changers with age and experience differences (Rosenberg et al., 2007), and their infrastructures are shaped to meet different needs (Washburn-Moses & Rosenberg, 2008). Alternative programs require candidates to hold Bachelor’s degrees and provide non-degree post-baccalaureate coursework to part-time, non-traditional students over age 25 (Rosenberg et al., 2007). During a time of the nation’s economic downturn, non-traditional students entered short-term training programs to obtain teaching positions. School districts benefited from recruitment of non-traditional individuals by having the option of employing a larger percentage of culturally and linguistically diverse teachers. Some researchers suggested the non-traditional student had characteristics that more closely matched their students (Robertson & Singleton, 2010; Rosenberg & Sindelar, 2001). Boe (2014) reported the ease of attracting non-traditional SET candidates to the field, contrasted with the difficulty of retaining them. Robertson and Singleton (2010) compared SETs’ length of employment based on their certification pathway and found that alternatively certified SETs remained in the field two years less than traditionally trained teachers did.

One explanation for the difficulty retaining SETs in high needs schools includes their widely variable preparation program experiences (Quigney, 2009; Rosenberg & Sindelar, 2001, 2005). Alternative programs vary in their degree orientation and field experiences, which also relate to their graduates’ students’ achievement. When
comparing alternatively certified teachers to traditionally certified teachers in Florida (Sindelar, Daunic, & Rennells, 2004), findings suggested that teachers from district-led programs lacked advanced degrees and received low-performance ratings. On the other hand, partnerships between universities and districts produced teachers with advanced degrees in special education (Rosenberg & Sindelar, 2001). Rosenberg and colleagues (2007) found that over 70 percent of SETs began full-time teaching within six months of starting their part-time preparation coursework. On-the-job training may not replace pedagogy-related coursework, evidenced by low self-efficacy ratings when alternative and traditionally certified SETs were compared (Henderson, Klein, Gonzalez, & Bradley, 2005). Lincove, Osborne, Mills, and Bellows (2014) reported potentially adverse effects of program variability on student math outcomes. Their comparison of over 7,000 teachers’ pathways to certifications and their effects on students’ math performance in Texas indicated a significant negative effect ($p < 0.1$) of district-led certification programs, without significant positive effects found for alternative or traditional undergraduate programs (Lincove et al., 2014, p. 29). On the other hand, Feng and Sass (2013) found that students of SETs with Master’s degrees significantly outperformed students of SETs with less education. Therefore, qualified, or fulfilling state certification requirements, may not indicate sufficient preparation (Cook & Boe, 2007), given the recorded differences in SETs retention and performance ratings, as well as their special education students’ achievement outcomes.

**Demand for Qualified Special Educators**

Though adequate populations of willing individuals have filled the demand for SET positions, their teaching performance has not improved educational outcomes for
students with disabilities (Feng & Sass, 2013). In addition, high-needs school districts struggle to recruit culturally diverse teacher candidates with characteristics similar to their student population (Boe, 2014). Rural districts’ demand for SETs now exceeds urban districts (Berry, Petrin, Gravelle, & Farmer, 2011). High needs districts with poor working conditions, minimal administrative support, and lower salaries tend to report high attrition rates for both general and special education teachers (Boe, 2014; Boe & Cook, 2006). Boe’s (2014) analysis of federal data suggests that SET attrition, turnover, migration, and transfer do not differ significantly from that of general education teachers, but he suggests that the supply of SETs is inadequate. Distributing effective SETs involves recruiting individuals from diverse backgrounds who are willing and able to pursue degree-fulfilling coursework, to complete field experiences with difficult working conditions, and to receive relatively small salaries.

**Recruitment of Qualified Special Educators**

As required by IDEA (2004), states recruit SETs using various media outlets, hosting job fairs, hiring recruiters, and providing online application procedures (Muller, 2010). As research on recruitment efficacy remains minimal, and not focused on long-term effectiveness, its cost-effectiveness is in question (Guarino, Santibanez, & Daley, 2006). SET recruitment often includes financial incentives such as signing bonuses, tuition remission for university coursework, and pension building for retirees who return to teaching (Billingsley et al., 2014; Muller, 2010). For example, Teach for America SETs receive loan forgiveness and tuition remission for two years of service, but research on their effectiveness has been inconclusive, with questions regarding diversity,
retention, student behavior referrals and achievement outcomes (Glazerman, Mayer, & Decker, 2006).

Local districts with substantial shortages used similar recruitment strategies to appeal to individuals who were more likely to remain in the area and match the cultural diversity of their students (National Partnership for Teaching in At-Risk Schools, 2005). Other strategies for recruitment have been individualizing programs to attract and retain SETs for target communities. In Utah, Native American SETs achieved dual certification in elementary and special education and received a specialized support program to meet their cultural needs. Graduates reported that their commitment to remain in their schools related to their cultural and community relationships (Heimbecker, Medina, Peterson, Red Steer, & Prater, 2002). Esposito, Berlin, and Lal (2007) reported that 80 SETs completed alternative programs in urban California mostly because they were funded to complete coursework on the sites where they taught, which added support systems related to their specific contexts.

When local school districts partner with universities to individualize alternative certification pathways that recruit and prepare individuals for SET careers, frequently compatible interests are met (Rosenberg, Brownell, McCray, deBettencourt, Leko, & Long, 2009; McCray, Rosenberg, Brownell, deBettencourt, Leko, & Long, 2011). School districts benefit by recruiting individuals to fill positions; universities benefit by maintaining connections between research and clinical practice, and special education teachers benefit from programs tailored to their learning needs (Muller, 2010; Rosenberg et al., 2009). According to McCray and colleagues (2011), institutions of higher education (IHEs) and local education agencies (LEAs) should establish collaborative
partnerships to leverage their assets in three areas. These include (a) addressing needs such as shortages and attrition, (b) combining financial and human resources, and (c) sharing teaching and supervision responsibilities. Successful partnerships share (a) a coherent, shared vision; (b) conscious effort to blend theory, content, and pedagogy; (c) carefully designed field experiences; (d) standards and research-based pedagogy; (f) emphasis on diverse learners; and (g) collaboration with the professional community (McCray et al., 2011).

In the past several IHE and LEA partnership programs recruited non-traditional students to complete degree-oriented programs of study with school district field placements (deBettencourt & Howard, 2004; Epanchin & Colucci, 2002; Glomb, Lignugaris-Kraft, & Menlove, 2009; Heimbecker et al., 2002). Districts hired the graduates of these programs as highly qualified special education teachers. For example, Utah State University collaborated with rural districts to provide online courses that trained almost 140 para-educators as SETs, who earned bachelor degrees in special education with a concentration in mild to moderate disabilities (Glomb et al., 2009). Similarly, distance-based courses trained paraeducators in several partnership programs (Epanchin & Wooley-Brown, 1993; Kurtts, Cooper, & Boyles, 2007), to teach students with severe disabilities (Keefe, Rossi, & DeValenzuela, 2000), emotional disabilities (Martin & Wienke, 1998), and deafness (Larwood, 2005). Unfortunately, at least 25% of participants did not complete these programs, which suggests a need for continued research efforts to understand methods for retaining SETs in their preparation programs and teaching positions.

**Retention of Qualified Special Educators**
Billingsley and colleagues (2014) identified three factors that the authors believe contribute to SET retention (a) preparation, (b) induction, and (c) work conditions. Another study suggested that field experience is a critical factor for retention with at least ten weeks of student teaching along with substantive feedback (Boe, Shin, & Cook, 2007). Retention rates are related to teacher satisfaction and self-efficacy, and may improve when novice SETs participate in formalized induction processes (Billingsley, Griffin, Smith, Kamman, & Israel, 2009). When inducted into the field, working conditions in which novice SETs feel supported, have realistic expectations for their roles and responsibilities and receive on-going development may also contribute to their retention (Ingersoll & Strong, 2011). Researchers recommend establishing collaborative partnerships between IHEs and LEAs to address SETs’ preparation, induction, and working conditions using flexible and tailored professional development school (PDS) models (McCray et al., 2011).

Connelly, Rosenberg, and Larson (2014) suggested that “step-up partnership preparation programs” (p. 220), in which paraeducators train to become special educators reported (a) high completion rates, (b) longer preparation periods, and (c) graduates who continued teaching special education at the same school longer than average rates. Though initial costs for funding these types of programs were considered high, other longer-term economic benefits and secondary outcomes were believed to outweigh the initial investment costs (Sindelar, Dewey, Rosenberg, Corbett, Denslow, & Lotfinia, 2012). There is a paucity of research looking at factors of retention within such partnership programs from the participants perspective (see Epanchin & Wooley-Brown, 1993; Glomb et al., 2009; Kurtts et al., 2007), and additional research is needed.
Study Purpose

The purpose of this investigation is to determine the extent to which university and local school district partnerships assist with the training and retention of special educators and to determine what factors are most predictive of SETs’ retention.

Research Questions

1. To what extent did an institution of higher education (IHE) and local education agency (LEA) partnership program retain the participants as special education teachers (SETs)?

2. What are the relationships between career phases, personal characteristics (e.g., prior teacher, prior special education, parenting, promotion) and career long-term intentions?

3. How did participants describe and rate their partnership program regarding quality indicators (e.g., program features, mentoring/induction activities, district procedures)?

4. To what extent do perceptions of program features (e.g., mentoring, induction, administrative support) differ based on participants’ intentions to remain in the special education field?

Graduates from one IHE-LEA partnership program that began 20 years ago were recruited to participate in this study. The partnership program began in 1994, and has continuously recruited individuals from the local area each year, many of whom began as para-educators or substitute teachers within the school district before enrolling in the partnership program. The university delivered the coursework leading to a Master’s degree in special education while the school district employed the candidates as paraeducators until graduation and then hired graduates as SETs after graduation.
Participants were asked to provide their perspectives on the partnership program, their induction into their career, including their mentoring experiences, district policies and practices, and their intention to remain in the field.

Independent variables related to features of partnership programs, such as mentoring and induction activities, and district procedures were measured using a research-based survey followed by a structured interview with a sample of participants. The dependent variable combined participants’ intentions to remain in the field with the number of years since completing the program. Participants were stratified based on their years of special education teaching experience after graduating from the partnership program. A mixed methods research design triangulated quantitative data collected from survey participants, the district and IHE data sources, and the qualitative data gathered from structured interviews. Results were analyzed using descriptive and inferential statistics based on quantitative data and by identifying key themes within qualitative data.
CHAPTER TWO
LITERATURE REVIEW

This chapter discusses factors related to special education teachers’ (SETs) recruitment, preparation, and retention. Factors such as the chronic shortage and annual demand for a diverse and well-prepared SET workforce frame this investigation in the context of IHE-LEA partnership programs. This chapter synthesizes research on partnership program features, such as participants characteristics, coursework, mentorship and induction activities, district procedures and their relationships to SET retention and career intentions.

Every child has a right to learn from a highly qualified teacher. Highly qualified teachers demonstrate competency on performance assessments and hold full certifications in their teaching areas (NCLB, 2002). Some believe students who have highly qualified teachers perform better on state achievement tests compared to students who have less qualified (Darling-Hammond, 2010) Unfortunately, many classrooms across the United States lack highly qualified teachers (Mason-Williams, 2015). Frequently, the greatest shortages of highly qualified teachers exist in special education classrooms where students have the greatest need (Mason-Williams, 2015). The demand for special education teachers (SETs) to provide students with disabilities with the specialized individualized instruction required by law has exceeded the supply of highly qualified SETs (Boe, 2014). Approximately 40,000 teachers are hired to teach students with disabilities annually (Boe, 2014), but up to 40% are not considered highly qualified (Mason-Williams, 2015). Figure 1 illustrates the special education workforce demand, supply, and shortage based on research synthesized by Boe (2014).
While there has been a decline in the number of full-time special education positions in the United States since the number peaked in 2001 (Boe, 2006), there is still a chronic nationwide shortage of positions for SETs in almost every state (Holdheide & Demonte, 2016). Many positions with challenging working conditions remain vacant, or uncertified individuals fill them. Too frequently, individuals without any teacher preparation fill vacancies (Boe & Cook, 2006). Out of necessity, districts may place unqualified individuals into vacant teaching positions (Boe, Cook, & Sunderland, 2008). Consequently, students with disabilities’ chronic low achievement rates have mirrored shortage rates (National Center for Education Statistics, 2015). Federal statutes include explicit mandates regarding recruitment of highly qualified SETs to fill vacancies (NCLB, 2002; IDEA, 2004). For example, the Race to the Top Fund (2011) and the Higher Education Opportunity Act (2008) both provided funding to school districts and universities to recruit and prepare teachers to meet the needs of students with disabilities.

Increasing the number of certified SETs entering the classroom is one potential solution for chronic special education teacher shortage issues. Unfortunately, researchers suggest that certification alone does not predict teacher effectiveness (Sindelar et al., 2004). Many SETs do not stay in the profession. Almost 25% of SETs leave their positions annually, and most of them leave education completely within three years of beginning their careers (Boe et al., 2008). Researchers believe that many SETs enter the field to make a positive difference in students’ lives (Fish & Stephens, 2009), but often they leave because of feelings of frustration and lack of success (Nance & Calabrese, 2009). For example, Berry and colleagues (2011) reported 42% of their 363 rurally placed SETs planned to leave the field to retire or move due to stress and lack of
preparation. Though considered highly qualified, SETs without special education degrees left the field at twice the rate of SETs considered *extensively prepared* with degrees and supervised field experiences (Boe et al., 2008). The push for increasing the quantity of SETs may not be as critical as addressing how the SETs’ preparation leads to feelings of success. Teachers who feel successful tend to stay in teaching (Boe et al., 2008).

Teacher trainers believe that teachers would feel more successful and would improve their ability to educate students with disabilities if provided extensive teacher preparation on how to implement evidence-based practices (Council for Exceptional Children, 2012). Extensive preparation is often defined as including graduate level coursework, eight weeks of field experience with supervision and feedback, and demonstrated content-area competency on certification tests such as the Praxis Test of Special Education Core Knowledge (Cook & Boe, 2007). SETs with extensive preparation reported feeling prepared to teach their subject matter, select curricular materials, plan lessons, use a variety of instructional methods, and assess students (Boe et al., 2007). Researchers have begun to suggest promising practices within extensive preparation programs that relate to SETs’ retention (Rosenberg et al., 2009). In addition to rigorous coursework and pre-service field experiences, some researchers suggest SETs benefit from formal mentors when they begin their careers (Billingsley et al., 2009), as well as supportive feedback administrative throughout their careers (Billingsley, Carlson, & Klein, 2004.)

While identifying promising practices for special educator pre-service training is an important first step towards preparing SETs, additional efforts are needed to
understand the linkages between higher education preparation and district supports. In particular, it is critical to comprehend the extent to which such preparation and school district supports improve SETs’ retention over time. In some cases, universities and school districts with established partnership programs have linked preparation, mentoring, and administrative supports. Such partnership programs hold promise for increasing the supply of highly-qualified SETs committed to remaining in the field (see McCray et al., 2011). Often the partnerships are formed to fill the gap between open school district positions in special education classrooms. The partnerships support the growth in numbers of SETs made available to fill vacancies. Partnership programs between IHEs and LEAs often share program features (McCray et al., 2011). Preparation, induction, and mentoring activities are designed using collaborative models. The common vision between IHE and LEA administrators often bridges the research to practice gap, training mentor teachers to provide supportive feedback, and providing pre-service teachers’ feedback that aligns with both IHE and LEA standards and practices (Rosenberg et al., 2009).

In one partnership, higher education faculty, district administrators, and in-service SETs shared responsibilities to implement a preparation program. Esposito and Lal (2005) likened their district partnership to a professional development school (PDS) model, in which school-based administrators and teachers served as program participants’ mentors and supervisors, and acted as liaisons to the IHE. Monthly IHE and LEA coordination meetings, weekly IHE advising at school sites, and bi-annual advisory committee meetings helped to sustain the program. Collaborative partnerships between IHEs and LEAs may be difficult to initiate and sustain.
Most university and district partnerships need (a) participants to diversify the workforce, (b) collaborative program features that meet participants’ needs, (d) supportive mentoring and induction activities, and (e) helpful district procedures. Partnership programs tend to design recruitment and program features designed to meet non-traditional students’ needs. Collaboratively designed partnership features include shared missions that guide applicable coursework and field experiences. Field experiences match program participants with mentor teachers from the LEA. Mentoring continues during program graduates’ induction career phase. Universities and districts collaborate to implement helpful and evidence-based procedures. The following sections discuss each of these partnership program features.

**Participants’ Characteristics**

Partnership programs have helped to diversify the SET workforce by recruiting individuals more likely to live in and remain connected to their school districts. For example, participants of partnership programs (see deBettencourt & Howard, 2004; Keller, Brady, Duffy, Forgan, & Leach, 2008) tend to be older (e.g., over the age of 30). In several partnership programs, over half had previous experience in local schools (Glomb et al., 2009; Kurtts et al., 2007). Simpson and colleagues (2005) found that about half of their participants were certified general education teachers. Sindelar and colleagues (2004) partnership program had participants who were over 34 years old and were previously para-educators.

Four studies described programs aimed at reducing SET shortages in Virginia (deBettencourt & Howard, 2004), North Carolina (Kurtts et al., 2007), Florida (Keller et
al., 2008), and California (Esposito & Lal, 2005). Two programs recruited para-
educators, who represented about 30% of each program’s roster, based on the belief that
para-educators would be invested to grow professionally and remain in their school
districts (deBettencourt & Howard, 2004; Kurtts et al., 2007). Two programs were
designed for in-service, un-certified SETs (interns) to ensure they met state qualifications
within required timeframes (Esposito & Lal, 2005; Keller et al., 2008). Two
programs aimed to certify para-educators and interns in rural districts using innovative distance
learning, mentoring, and collaboration techniques, to reduce traveling and capitalize on
local assets (Glomb et al., 2009; Simpson, Yocom, & Blum, 2005). These partnerships’
efforts resulted in recruitment of non-traditional teacher candidates to fill otherwise
vacant SET positions in school districts across the country. Non-traditional teacher
candidates have filled many SET positions, and it is useful to understand the
demographic profile of partnership program participants to determine if there are
characteristics that distinguish partnership graduates from traditional graduates and if the
characteristics relate to their retention.

**Program Features**

**Partnership program coursework.** Several partnership preparation programs
delivered coursework with models designed to meet their participants’ prior educational
attainment and personal needs. While some programs lead to a graduate degree, and some
lead to a bachelor’s degree, and often required coursework was identical to their
universities’ traditional preparation programs, but traditional field experiences were
replaced with paid positions in partnering district schools (deBettencourt & Howard,
2004; Kurtts et al., 2007). Other partnership programs enrolled individuals without any
prior educational experience and expedited their pathway to a teaching position and completion of a post-baccalaureate degree (Esposito & Lal, 2005; Keller et al., 2008). Some offered courses on weekends, evenings, and during the summer to expedite degree and certification requirements (deBettencourt & Howard, 2004; Esposito & Lal, 2005; Kurtts et al., 2007). Other programs delivered coursework to widely dispersed candidates across their rural partnering districts.

An essential need for every SET includes coursework aligned to the Council for Exceptional Children’s special education teacher preparation standards. Recommendations suggest completing 30 credit hours on topics such as collaboration, effective instruction in reading and mathematics, and legal issues. Morewood and Condo (2012) determined coursework characteristics may predict SET retention, and suggested linkages between coursework and field experiences. Coursework assignments included (a) conducting a functional behavioral assessment, (b) implementing and monitoring progress using an evidence-based instructional strategy, and (c) developing and evaluating a positive behavior intervention and support program. According to Morewood and Condo (2012), teacher-educators should consider closely aligning coursework and field experiences. One partnership explicitly designed coursework and assignments along the scope and sequence of the program to align with SETs field experiences (Keller et al., 2008). More research needs to determine if course requirements, such as portfolios that align to field-experiences assist in facilitating SETs’ ability to be successful in the classroom.

Feng and Sass (2013) compared students’ with disabilities math and reading achievement scores, based on teachers’ special education coursework, certification, and
professional development, and found significant predictors of higher scores. Specifically, SETs with post-baccalaureate or advanced degrees had higher rates of students who scored better on math and reading assessments (Feng & Sass, 2013). Professional certification, majors in special education and coursework related to reading instruction predicted improved reading assessment scores (Feng & Sass, 2013).

**Partnership program’s field experiences.** Many field experiences required on-the-job training. Participants were hired by the districts and taught students while completing their coursework and acquiring their certification. Kurtts and colleagues (2007) reported that participants were placed as para-educators with lead teachers as mentors during their field experiences. Sindelar and colleagues (2004) found that SETs trained while working as para-educators through an IHE-LEA partnership program scored higher than traditionally prepared SETs on scales measuring their ability to build professional relationships, and scored as well as traditionally prepared SETs on becoming familiar with SWDs’ background and creating a fair classroom climate. Partnership program graduates earned significantly higher scores on eight quality indicators, such as setting challenging learning expectations, making the learning environment safe, and communicating with parents (Sindelar et al., 2004). Additionally, program graduates rated themselves as feeling significantly more prepared for their jobs and as self-efficacious as traditionally prepared SETs (Sindelar et al., 2004). Results suggested that partnership program graduates demonstrated skills at least as strong as TPP graduates, expressed strong preparedness and efficacy, and 62% reported that they planned to remain in the field until retirement (Sindelar et al., 2004). Para-educator placement
during field experiences appears to offer promising benefits to all stakeholders in partnership programs.

Several partnerships structured their programs around cohort groups. Cohorts are groups of students who attend the same course sequence at the same time, which is a strategy to facilitate networking and support among participants. Many partnership programs also supported participants by assigning mentors in their placements and by offering additional professional resources specific to participants’ needs (e.g., deBettencourt & Howard, 2004; Esposito & Lal, 2005; Keller et al., 2008; Kurtts et al., 2007).

In some cases, partnership programs overcame geographic challenges by adapting traditional mentoring and supervising strategies to monitor field-based experiences using distance technology. For example, Glomb and colleagues (2009) reported that efforts to build a geographically diverse network of mentors and university supervisors over the course of 15 years enabled their program to increase its retention rate from 30% to 75%. The partnership ensures appropriate training for mentors and supervisors to use videotaped lessons and electronic feedback systems to share SETs’ progress with the IHE. Mentors also use an online discussion forum, in which statewide collaborative problem solving occurs.

Similarly, Simpson and colleagues (2005) reported the importance of IHE-LEA partnerships in rural districts to train mentors and administrators while supporting preparation program participants. Administrators are trained in collaborative consultation and special education legal issues, so they are better prepared to supervise SETs. The
program trains mentors using a 12-hour peer-coaching program, for which they receive graduate credit. In exchange, mentors and administrators support the program’s participants and supply progress feedback to the IHE. Each of these activities takes place virtually, except for scheduled regional meetings for mentors and mentees (Simpson et al., 2005). In sum, partnership programs provide high-quality training by closely monitoring and supporting candidates during their initial field placements. Due to the descriptive nature of these studies, more research is needed to investigate the efficacy of immediate job placement and the use of LEA-based mentors and administrators as university-supervisors for retaining partnership program graduates beyond their beginning years.

**Partnership programs’ retention rates.** Several partnership programs indicated that almost all their graduates remained as SETs for their states or districts for at least two years (deBettencourt & Howard, 2004; Esposito & Lal, 2005; Kurtts et al., 2007; Simpson et al., 2005). One program reported a weak IHE-LEA partnership and low participant retention (Keller et al., 2008). Two programs claimed 100% retention rates for their graduates at the time of the study, although small percentages did not complete the programs (deBettencourt & Howard, 2004; Simpson et al., 2005). Many participants reported that they remained for professional and personal reasons, including peer support, mentoring, and financial resources (Kurtts et al., 2007). Esposito and Lal (2005) credited a two-year service obligation for one program’s retention of 81% of participants, and the researchers did not report retention rates beyond their graduates’ obligation requirement (Esposito & Lal, 2005). The Utah State distance program continues to recruit 200 applicants annually, according to Glomb and colleagues (2009) credited one distance
program’s ability to adapt coursework and mentoring activities, which have led to a competitive application process and the employment of 108 graduates working in 27 rural districts.

Partnerships overcame many challenges to recruit and prepare much needed SETs, and empirical research is needed to determine if evidence supports the proliferation of partnership programs. The literature supplies multiple resources for measuring and analyzing SET retention, such as recruitment, enrollment, program completion, in-district placement, years in the same position, and reasons for leaving positions. Building on previous evaluations using established measures can guide future research.

**Summary of preparation program features.** Taken together, results from past studies suggest that extensive preparation reduces SET attrition and turnover, but specific preparation program features contribute to teacher quality, which may improve SET retention over time (Boe, 2014; Cook & Boe, 2007). Research on partnership programs suggested that non-traditional teacher candidates may be recruited when the job appeals to their sense of altruism and offers convenience and financial benefits (deBettencourt & Howard, 2004; Kurtts et al., 2007; Glomb et al., 2009). Coursework, whether leading to a bachelor’s or a master’s degree, included at least 30 credits that replicated traditional programs and aligned to CEC standards (Esposito & Lal, 2005). SETs with advanced degrees appear to influence positive student achievement (Feng & Sass, 2013). Diverse field experience models met program participants’ personal needs; while LEA field-based mentors and administrators who communicated interns’ progress to IHEs benefited from professional development (Rosenberg et al., 2007; Simpson et al., 2005). Overall,
partnership programs retained most of their participants through program completion through their beginning years in the field (deBettencourt & Howard, 2004; Simpson et al., 2005). Additional research needs to establish linkages between IHE-LEA partnership program features and SET shortages and improvements in retention. The current investigation will investigate the following ten program features (a) location, (b) program length, (c) coursework, (d) program cost, (d) tuition benefit paid by district, (e) placement as a para-educator, (f) support to complete competency tests, (g) support from university supervisors, and (h) collaboration with program participants’ cohorts.

While these studies suggested that partnership program features have been adapted to meet participants’ personal needs during their preparation phase, specific activities and procedures that participants experienced throughout their career phases may also contribute to SET quality and retention. The next two sections describe research on mentoring and induction activities and district procedures related to SET retention. By identifying possible predictors of SET retention across career phases, research can investigate if partnership programs provide similar features, and if these features promoted their graduates’ retention and quality over time.

**Mentoring and Induction Activities**

Experienced special education mentors provide empathetic professional support to pre-service teachers during field experiences. Likewise, mentoring during SETs’ first years provides emotional and professional guidance when attrition is most likely. Supportive mentors and induction programs for teachers have become more commonplace in school districts (Billingsley et al., 2009). Most research on mentoring
and induction activities within partnership programs tend to focus on general educators, but a few investigations were related to SETs. These investigations provide a context for promising practices that may improve retention of special educators (Billingsley, 2004b; Billingsley et al., 2009; Cochran-Smith et al., 2011; Guarino et al., 2006; Ingersoll & Strong, 2011). This section discusses induction and mentoring activities as they relate to partnership training programs and retention of their graduates.

Induction. Induction refers to SETs’ career phase during the first one to five years of teaching, when they become indoctrinated into their schools’ contexts, but can also include formal programs to ensure adequate professional development. According to Billingsley (2004a), SET induction should include reasonable teaching assignments, helpful feedback, and emotional support to facilitate SET professional development and student outcomes, reduce isolation and stress, and improve retention. Strong induction programs predicted lower attrition rates (Guarino et al., 2006; Ingersoll & Strong, 2011) and higher retention rates (Billingsley et al., 2009). Billingsley and colleagues (2009) reviewed four studies that reported retention rates of SETs who participated in formal induction programs administered by partnerships between IHEs and LEAs. All studies included novice teachers, so retention was limited to a maximum of three years. Retention rates ranged between 82% and 95% (Carr & Evans, 2006; Gehrke & Murri, 2006; Holdman, Harris, & McDonnell, 2003; Irinaga-Bistolas, Schalock, Marvin, & Beck, 2007), which exceeded the national average retention rate of 75% (Cook & Boe, 2007).

Kennedy and Burstein (2004) described a formal induction program with a 95% SET retention rate. Several instruments provided data on participation, satisfaction, and
retention, including mentors’ logs, an online evaluation system, a program survey, and
district retention reports. The program, called Beginning Teacher Support and
Assessment, operated through a partnership between California State University at
Northridge and the Los Angeles School District. During the four years of
implementation, 190 novice SETs were supported by 45 mentors and completed a two-
year formal induction program. The induction program included individualized, weekly
support, five professional release days, monthly professional development workshops,
and a stipend for attending a professional conference or purchasing materials. In addition
to high retention rates, the data from Kennedy and Burstein (2004) suggested high
satisfaction ratings for both the induction program and participants’ mentoring
experiences.

Some research on informal induction activities and SET retention relies on
participants’ self-reports and applies statistical analyses to determine potential effects
(Billingsley et al., 2004; Morrison, 2010). Billingsley and colleagues (2004) used a
federal dataset to sample 1,153 novice SETs and analyze the relationship between their
perceptions of mentoring and induction activities and their intention to remain in the
field. Because only 32% of possible participants responded to the survey, results were
interpreted with caution. Study participants’ demographics were representative of
alternative preparation program graduates with a mean age of 33 years, minority rate of
12%, and uncertified rate of 20% (Billingsley et al., 2004). Composite scores based on
scaled item-responses measured induction by including the frequency and helpfulness of
support provided by administrators and colleagues, job satisfaction ratings, and school
climate ratings. Participants’ intention to remain in special education was operationalized
as a grouping variable. Three groups included 448 (37.2%) intended to remain as long as they are able; 150 (14.6%) intended to remain until retirement; 218 (20.3%) intended to remain until something better came along or planned to leave as soon as possible; and 309 (27.9%) were undecided. Results suggested that SETs who intended to remain in the field until retirement had significantly higher school climate scores and similar early career supports as SETs who intended to leave the field sooner. Furthermore, only 60% of the sample reported induction experiences, and 66% rated induction activities as helpful. Further analyses using t-test results suggested that SETs with moderate to high induction scores perceived their jobs as more manageable than did SETs with low induction scores (Billingsley et al., 2004). Billingsley’s study suggested that induction was less related to SETs retention than to school climate, but these findings require further exploration, due to the limitations of the sample size.

Morrison (2010) slightly modified surveys used in previous research (e.g., Billingsley et al., 2004), and added semi-structured telephone interviews in her mixed-methods investigation into the relationship between induction, mentoring, and retention. Morrison (2010) used Whitaker’s (2000) career intentions scale hypothesizing that using a quantifiable amount of time one intended to remain in the field might reduce participants’ likelihood to select “undecided.” Less than 20% (N = 41) selected “undecided,” but an equivalent number of participants “selected less than 10 years” (N = 103, 21.6%) and “more than 15 years” (N = 115, 24.1%). Morrison’s (2010) results replicated Billingsley’s and colleagues’ (2004) findings, as neither induction nor mentoring activities were significantly associated with novice SETs intentions to remain in the field. However, informal activities, such as the frequency of administrator support,
were related correlated more strongly with school climate, which may be an indirect predictor of SET retention. These studies on induction provide the context for further exploration using similar measures of induction activities as they relate correlate to SETs’ career intentions. Additional research needs to investigate if partnership programs’ induction activities improve SET retention over time.

**Mentoring.** It is possible that recent attention paid to implementing SET’s mentoring programs helped to increase their prevalence and effectiveness. While only 60% of the SETs in Billingsley’s et al. (2004) study reported having a mentor, over 80% of participants in Morrison’s (2010) study responded “yes” to having a mentor during their first year of teaching. Formal mentors provide SETs with emotional and instructional support (Billingsley et al., 2009). Mentors should help with daily issues, observe novice SETs’ teaching, assist with teaching strategies, share insights, and help with the mechanics of the job (Billingsley, 2004b). According to Ingersoll’s and Strong’s (2011) findings, SETs with mentors who taught the same content area had lower attrition rates, as did SETs who collaborated with other colleagues. Dai, Sindelar, Denslow, Dewey, and Rosenberg (2007) also suggested that SETs should have release time to work with their colleagues and meet with their mentors, who should be experts in their field.

Research suggests that novice SETs perceive specific mentors’ characteristics and mentoring activities as helpful (Kennedy & Burstein, 2004; Morrison, 2010). Morrison (2010) reported that more than 50% of SETs’ mentors were also special educators who worked in their same schools and that mentors were not a part of their formal evaluation teams. Most (49.3%) mentor – mentee contacts occurred face to face or by email (28.7%), and study participants reported these contacts occurred daily (23.4%), weekly
(13.3%) or several times per week (18.4%). More than half of participants also said that mentors treated them professionally, were available to help, recognized their accomplishments, and encouraged personal balance and reflective practice. Mean ratings (out of five possible points) of effective mentor practices indicated that SETs valued their mentors’ emotional support and encouragement (3.88), help writing IEPs (3.64), and observations of and feedback on their teaching (3.46) (Morrison, 2010).

One study investigated the potential of a formal mentoring program to improve SET retention (Kennedy & Burstein, 2004). Novice SETs in Kennedy and Burstein’s (2004) study worked with culturally and linguistically diverse students with mild to moderate disabilities from families with low incomes, which adds to the research base needed to understand this district context. Novice SETs in previous research reported struggling to adjust to high-needs schools, but Kennedy and Burstein (2004) described a program that provided mentors to SETs for two years to support their induction phase and prevent burnout. Administrators recommended mentors with three years of teaching experience and 36 (80%) of the mentors taught in the same school as their mentees (Kennedy & Burstein, 2004). The program allowed five release days for mentors and mentees to attend workshops, discuss legal requirements related to case management, review lessons, assess students and discuss results, solve classroom management issues, and improve parent-teacher communication (Kennedy & Burstein, 2004). After three years, 95% of participating SETs remained in their positions (Kennedy & Burstein, 2004). Descriptions of formal mentoring and induction programs offer promising models, but empirical research using higher-level statistical analyses needs to investigate the efficacy of similar strategies for sustaining SET retention across career phases.
The lack of experimental research in this field, related to the difficulties with randomly assigning induction programs and mentors to novice SETs, might be addressed by using different research designs. Future research should analyze differences between SETs’ preparation programs, SETs’ perceptions of mentoring and induction activities, and their intentions to remain in the field. Morrison (2010) provided an initial investigation by creating composite scores for mentoring activities and separating participants into groups prepared traditionally or by alternative programs. Results suggested that SETs’ ratings of mentoring activities did not significantly differ between traditionally prepared SETs, who rated them slightly higher ($N = 59, M = 28.1$) than alternatively prepared SETs ($N = 27, M = 26.8$). Interestingly, ratings of induction programs, though not significantly different, were higher for alternatively prepared SETs than they were for traditionally prepared SETs. These findings support other research, in which SET graduates from partnership programs valued their mentoring and induction activities (e.g., deBettencourt & Howard, 2004; Esposito et al., 2007).

**Summary of mentoring and induction activities.** Mentoring and induction activities designed to meet SETs’ needs for specific contexts hold promise for improving retention. Specifically, formal mentoring and induction programs facilitated by IHE-LEA partnerships have retained 20% more SETs than the national average (e.g., Carr & Evans, 2006). Novice SETs preferred experienced special education mentors located within their same schools, who make frequent, but non-evaluative contacts (Morrison, 2010). Strategic mentoring activities can assist with providing professional development and emotional support while novice SETs transition to the challenges of their new roles and responsibilities (Billingsley et al., 2004). Mentors should receive professional
development from partnership programs to enhance their leadership skills, which may help sustain their retention in the field (Kennedy & Burstein, 2004). Furthermore, partnership programs can implement induction programs that also train school administrators in special education content (Kennedy & Burstein, 2004). Collaborative efforts by teacher educators, district and school administrators, mentors, and novice SETs can help to establish professional communities committed to the field of special education across their career phases. Additional research needs to investigate which mentoring and induction activities provided by partnership programs predict SETs’ retention across career phases.

**District Procedures**

Partnerships between IHEs and LEAs help recruit and prepare SETs for careers in the sponsoring district and research evidence-based procedures for supporting SETs throughout their careers. The following sections describe studies that suggest district procedures predictive of SETs’ attrition and retention. The first section describes district procedures under which SETs reported they intended to leave the field, and the second section focuses on reported reasons SETs intended to remain.

**District-related attrition.** Policies and practices within the purview of district administrators may influence SET attrition. Findings from three recent studies conducted with SETs placed internationally (Albrecht, Johns, Mounsteven, & Olorunda, 2009), in Alabama (Plash & Piotrowski, 2006) and in North Carolina (Clotfelter, Glennie, Ladd, & Vigdor, 2008) specified district-controlled procedures that influenced attrition. Clotfelter and colleagues (2008) evaluated the implementation of a $1,800 bonus intended to reduce
SETs’ attrition. The bonus was not communicated effectively, as 95% of returning SETs did not understand the extent of their eligibility, and 13% did not know they were eligible at all. Had they known, 70% of participants said the bonus would have positively influenced their decision to remain in the field (Clotfelter et al., 2008). These results supported Guarino and colleagues’ (2006) and Williams, Martin, and Hess’ (2010) recommendation to implement financial incentives to help retain SETs, but districts should communicate them more effectively.

To understand why highly qualified SETs would leave the field, two studies used survey research to analyze reasons teachers may consider leaving their positions (Albrecht et al., 2009; Plash & Piotrowski, 2006). Participants rated seven items as reasons to leave. These included (a) job conditions, (b) occupational stress, (c) demands and responsibilities related to legal compliance, (d) caseload size, (e) class size, (f) personal reasons, and (g) threats of litigation (Plash & Piotrowski, 2006). Albrecht and colleagues (2009) used a 28-item survey to find that 776 SETs with less than five years of experience would leave the field as a consequence of difficulties dealing with behavior issues and their schools’ limited behavior modification programs (Albrecht et al., 2009). These three studies suggest that poor financial incentive implementation, stressful role demands, overwhelming case-related responsibilities, and poor implementation of evidence-based behavior modification strategies may contribute to SET attrition. It is possible that partnership programs with advertised financial incentives to recruit mentor SETs and administrators as university-supervisors may provide an infrastructure for increasing the implementation of evidence-based school-wide behavior supports and supporting SETs faced with overwhelming role demands. More research is needed to
investigate the relationship between procedures used by districts with university partners and their SETs attrition rates.

**District-related retention.** Understanding promising district policies and practices for retaining SETs can help with partnership program improvement. Several studies of district procedures surveyed participants’ perceptions of their job satisfaction and measured its relationship to preparation program type (Voris, 2011) and career intentions (Stempien & Loeb, 2002). Survey items used to rate job satisfaction included, “I feel safe working with my students; My performance evaluation was fair; My class sizes are reasonable; I have an opportunity for advancement in this job, and I am satisfied with my salary as a teacher” (e.g., Morrison, 2010). Voris (2011) investigated differences between SETs trained traditionally and through alternative routes based on their job satisfaction ratings, and her results suggested no significant differences in job satisfaction between groups. Results from a study by Stempien and Loeb (2002) indicated that, for most of their sample, SETs felt significantly less satisfied than general education teachers did, and many reported feeling frustrated while teaching. SETs with higher job satisfaction were significantly more likely to remain in the field longer (Stempien & Loeb, 2002). Job satisfaction ratings may not offer a reliable measure of SETs’ experiences in districts, as the construct and measure rely on self-reported perceptions, rather than observable data. However, new research may use job- rating scales to identify differences between SETs across career phases, to determine the extent to which partnership programs may help improve satisfaction and long-term retention.

Previous research reported that job satisfaction and school climate were correlated with support from administrators, support personnel, and access to resources (Billingsley
et al., 2004; Cross & Billingsley, 1994; Morrison, 2010). Five studies investigated the extent to which SETs reported receiving support from their administrators and the helpfulness of that support. All studies’ participants taught children with emotional and behavioral disorders (EBD) (Albrecht et al., 2009; Cancio, Albrecht, & Johns, 2013; Mitchell & Arnold, 2004; Prather-Jones, 2011; Stempien & Loeb, 2002). Teaching students who struggle to control their emotions and who have behavioral outbursts requires specialized skills in behavior management as well as access to a supportive team of colleagues to help with crises and problem solving (Alberto & Troutman, 2013). For example, Mitchell and Arnold (2004) found that out of 228 SETs surveyed in Texas, those with lower behavior management skills and fewer years of experience were significantly more likely to leave the field.

Two studies identified predictors of SETs’ retention based on their reports of administrative and colleague support as a function of students’ behavioral needs (Albrecht et al., 2009; Prather-Jones, 2011). Albrecht and colleagues (2009) suggested that SETs who intended to remain in the field were more likely to report daily administrative support, daily availability of support personnel, adequate time to complete paperwork, and school-wide implementation of Positive Behavior Intervention and Supports (PBIS) with a point and level system. Similarly, Prather-Jones’ (2011) found that SETs of students with EBD, who worked in their field for more than seven years reported positive administrative support defined by including them during disciplinary decision-making. The 13 SETs that participated in Prather-Jones’ (2011) study valued administrator provided time allotments to plan with colleagues. Both studies also suggested that SETs of students with EBD were more satisfied with their jobs and
intended to remain in the field as a function of feeling respected and appreciated by their administrators (Albrecht et al., 2009; Prather-Jones, 2011).

Specific administrator behaviors may predict SETs’ feelings of respect and appreciation. Cancio and colleagues (2013) identified four factors that defined types of administrative support, including (a) guidance and feedback, (b) opportunity for growth, (c) appreciation, and (d) trust. They received responses to their 96-item survey from 408 SETs of students with EBD in all phases of their careers that taught in various settings and found that specific administrators’ behaviors significantly predicted long-term intentions to remain in the field. Specifically, ratings of administrators’ appreciation of SETs work and effort, and providing a sense of importance were significantly higher for SETs who reported long-term intentions. SETs with long-term intentions also had significantly higher ratings of their administrators’ frequency of providing performance feedback, opportunities to attend professional development workshops and collaborative meetings, and showing confidence and support for decision-making. Although the study reported both frequency and the importance of the supports provided, only frequency scores were significantly different between groups, with higher frequencies predicting longer-term commitment. The factors explored by Cancio and colleagues (2013) were important to most SETs, and those who experienced more guidance, opportunities, appreciation, and trust were more inclined to remain in the field.

**Summary of district procedures.** District policies and practices, implemented and enforced by school administrators, often influences SETs’ career intentions. The research suggests that financial incentives, implementation of consistent behavior support programs, and providing collaborative planning time are policies predictive of SETs
retention (e.g., Albrecht et al., 2009). Additionally, administrative practices, such as providing frequent professional and personal feedback, and offering support during disciplinary decision-making, predicted SETs’ long-term commitment to the field (Cancio et al., 2013). This body of research suggests district procedures linked to partnership preparation program features and induction activities might be predictive of SETs’ retention. For example, partnership program graduates’ perspectives of their districts’ procedures should be analyzed to determine if they relate to SETs’ career intentions and retention rates across career phases.

**Retention Measures**

One of the most important reasons LEAs collaborate with universities is to secure a well-prepared workforce that remains in the field as effective SETs. Partnership programs must evaluate the effectiveness of their efforts to promote program improvement. Measuring SET retention in relationship to SETs perspectives of program features is one way to evaluate program effectiveness. To measure retention, researchers have collected SETs’ career intentions and retention rates through surveys, interviews, district databases, and preparation program databases (Fish & Stephens, 2009; Nance & Calabrese, 2009; Robertson & Singleton, 2010; Sindelar et al., 2012; Stephens & Fish, 2010).

**Surveys.** Surveys supply one evaluation tool researchers repeatedly used to measure program perspectives and SETs intentions to remain in the field. SETs reported their long-term career intentions by responding to survey questions that asked how long they plan to remain in the field of special education (e.g., Fish & Stephens, 2009).
Earlier studies (e.g., Billingsley et al., 2004) asked SETs to rate their commitment to the field on a scale that ranged from remaining until retirement to leaving as soon as possible. Boe and colleagues (2008) used the SASS Teacher Follow-up Survey’s 11-item questionnaire to determine why SETs chose to leave the field. Boe et al., (2008) reviewed such reasons as to escape, to pursue other professional interests, to address personal needs, to retire, or for involuntary reasons. Fish and Stephens (2009) surveyed mid-career SETs to estimate the number of years they intended to remain in their current positions and to indicate their influences, such as their volition to serve those in need, their employer or district, public policy, and legislation. Although the survey instruments were pilot-tested and revised, researchers did not report reliability coefficients for their samples. Without instrument reliability, self-reported responses restrict a study’s internal validity and generalizability (Remler & Van Ryzin, 2011). More research needs to test the reliability of survey questions frequently used in SET retention research.

**Interviews.** To verify survey data, several researchers used structured interviews with participants, which added anecdotal support to their findings and supported previous research (Nance & Calabrese, 2009; Stephens & Fish, 2010). For example, an initial investigation by Fish and Stephens (2009) produced survey results indicating that 74% of elementary teachers and 69% of secondary SETs planned to remain in the field for at least five years. During interviews in a follow-up study, SETs shared that they remained in special education because they found it rewarding and they appreciated colleagues’ support (Stephens & Fish, 2010). SETs attributed their career intentions to feeling satisfied with making a positive difference, overcoming challenges of the job, and helping students make academic progress (Stephens & Fish, 2010). Nance and
Calabrese (2009) interviewed SETs who left the field, and they shared their frustrations with caseload responsibilities that interfered with instructional time. Based on these results, district policies and administrative supports seem to influence mid-career SETs to leave or stay, despite their volition to serve those in need. Anecdotal self-reports added details to empirical research but are not evidence of predictive relationships. More research needs to collect reasons why SETs who completed partnership programs remain in the field to confirm empirical findings.

**Databases.** Administrators from school districts and preparation programs monitored SET retention by recording their on-going employment in databases (Robertson & Singleton, 2010; Sindelar et al., 2012). Robertson and Singleton (2010) used a district database of employed SETs to investigate SETs years of employment. They analyzed the number of years SETs remained in their positions to compare mean retention rates based on preparation type (traditional or partnership program). Years retained were calculated by subtracting the number of years employed from their graduation year. Descriptive data showed that most SETs from partnership programs graduated within five years of the study while most traditionally prepared SETs graduated nine years previously. Due to differences found between groups’ distribution of years since graduation, Robertson and Singleton used independent t – tests to analyze their data. Findings suggested that a greater number (N = 190) of traditionally prepared graduates remained in the district than partnership program graduates (N = 183). Furthermore, the average length of traditionally prepared SETs’ employment was significantly longer than the duration of partnership program graduates’. These results are debatable, given differences between groups from the onset of the study. In addition
to the confounding variable of years employed since graduating, participants’ preparation program features skewed results. Specifically, partnership program graduates earned Master’s degrees during their preparation programs, and were possibly promoted to non-teaching positions within the special education field; whereas traditionally prepared SETs earned bachelor degrees and lacked eligibility for similar promotions (Robertson & Singleton, 2010). This study’s limitations highlight the challenge of measuring and analyzing SET retention using a quasi-experimental research design. Research is still needed that compares SET retention rates based on their career phases. For example, instead of using an independent $t$-test to compare mean years retained, similar research attempts can use ANOVAs by grouping SETs from the same career phase (e.g., mid-career or 6-10 years after graduation) and investigating differences in retention based on preparation program features.

In addition to using databases, one study incorporated multiple measures to investigate differences in retention rates based on preparation type. Specifically, Sindelar and colleagues (2012) used multiple sources to conduct a cost-benefit analysis of ARC programs based on differences in preparation program type, practice teaching requirements, and graduates’ retention rates. Program directors reported their graduates’ retention rates to researchers during structured interviews over the phone, and graduates completed a follow-up survey that asked about their career intentions. These data were analyzed to describe and rank alternative programs’ cost-effectiveness by program type. Sindelar et al. (2012) reported retention rates of participating programs that suggest differences between program effectiveness. Partnership programs retained 100% of graduates; district-based program retained 96%; distance programs retained 92%; and
91% of university-trained interns remained in the field (Sindelar et al., 2012). These data satisfied this study’s research purpose, methods, and design while exemplifying a process for collecting multiple sources of retention data. Additional research needs to investigate relationships between SETs’ retention rates and career intentions based on preparation program type and career phases.

Summary

Previous research identified four factors related to SET quality and retention. Factors include (a) preparation programs tailored to participants’ needs, (b) coursework aligned to professional standards, (c) mentoring and induction activities provided by university and district partnership programs, and (d) supportive district policies and personnel (e.g., Rosenberg et al., 2009). These factors helped to alleviate the SET shortage in recent years. However, recent trends suggest that up to 50,000 new SETs will be hired annually within the next decade (Boe, de Bettencourt, Dewey, Rosenberg, Sindelar, & Leko, 2013), and that the SET turnover rate is growing (Boe, 2006). Thus, additional research needs to establish an evidence-base of effective special education preparation program features, along with mentoring activities during the induction phase of SETs careers’, and district procedures that predict SET career intentions. Special education teacher education research needs to “conceptualize the linkages between features of recruitment, preparation, and induction efforts, and subsequent effects on turnover” (Billingsley et al., 2014, p. 96). The purpose of this investigation is to build on past research on partnership programs that suggest predictive factors. The current investigation will look at SETs’ retention across career phases. Although a few of the included studies reported relationships between one or more predictors of SETs’
The literature provides a few predictors and measures of SET quality and retention. IHE-LEA partnership preparation programs have suggested promising practices for recruiting, preparing, and retaining special education teachers. Additional research needs to investigate the linkages between partnerships’ program features (e.g., mentoring and induction activities) once the graduate is hired by the school district (e.g., administrator support and work arrangements). Research efforts should examine the extent to which partnership programs with linked approaches help reduce SET attrition. More research needs to combine existing instruments to describe partnership program participants, program features, mentoring and induction activities, district procedures, and retention to report findings reliably. IHEs and LEAs need evidence-based practices to increase the SET supply graduating from their partnership preparation programs. Policy makers need researchers’ recommendations for evidence-based practices to continue funding the preparation programs that will reduce the shortages of SET.

The Purpose of This Investigation

This investigation builds on previous research by examining the potential of IHE and LEA partnership programs to retain the SETs they trained. Specific factors were investigated to determine the relationships with each other and with SET retention. A mixed-methods quantitative-qualitative design was used to establish if specific participants’ characteristics, and their perceptions of program features, mentoring and
induction activities, and district procedures predicted retention and career intentions of novice and veteran SETs. Results from this study will inform program developers, administrators, researchers, policy makers, and funders.
CHAPTER THREE

METHOD

The purpose of this investigation is to determine the extent to which IHE and LEA partnerships assist with the recruitment, training, and retention of diverse special educators, and to determine what partnership program aspects are most predictive of their intentions to remain in the special education field. Chapter Three presents the research methods for this quantitative-qualitative mixed methods study’s design. After describing the participants, settings, and instruments, the design, procedures, and analyses are discussed. The following research questions directed this investigation:

1. To what extent did an IHE-LEA partnership program recruit, graduate and retain diverse SETs?
2. What is the relationship between career phases, the personal characteristics variable set (prior teacher, prior special education, parenting, promotion) and career intentions?
3. How did participants’ describe and rate partnership program quality (program features, mentoring/induction activities, district procedures) based on their career phases?
4. To what extent do perceptions of program features, feeling prepared, mentoring, induction, administrative support, and work arrangements differ based on low, medium, and strong intentions to remain in the special education field?

Participants and Setting

Participants. A partnership program for preparing SETs exists between a university and a local school district. Several steps identified the participants for this
investigation. The first step was to review the databases kept by the IHE and LEA to determine potential partnership participants between the years of 1994 and 2004. The list initially included 176 participants; however, four individuals had not completed the program. This study’s sample was restricted to only program graduates who also remained in the LEA, evidenced by publically listed LEA-based email addresses (N=119). Participants who were not identified in the district database constituted a not-recruited group (N = 53). The not-recruited group included the program graduates who were not available to participate as it was not possible to contact them by email (i.e., due to name changes, missing names in the IHE public list of employees, or multiple listings of the same name in the LEA database). Characteristics of the partnership program graduates who were recruited compared to those could not be contacted (non-recruited) are provided in Table 1.

**Setting.** The partnership program existed between a private university and a large metropolitan school district in the Mid-Atlantic section of the United States. The university’s School of Education graduates about 500 graduate students per year and employs 75 full-time faculty members. The research-oriented university ranked among the top five graduate schools of education by *U.S. News and World Report*, and the university website (see www.education.jhu.edu/aboutus/partnerships) lists 18 community, business, and district partnerships. The partnering district associated with this study is the 16th largest school district in the United States, with 144,064 students and 11,673 teachers (Montgomery County Public Schools, 2010). The demographics of the LEA included a diverse student body; 13% English Speakers of other Languages, 12% Special
Education, 31% Free and Reduced Meals, 37% White, 23% African-American, 23% Hispanic, and 16% Asian (Montgomery County Public Schools, 2010).

**Partnership program features.** The IHE-LEA partnership program was advertised as the Special Education Teacher Immersion Training (SET-IT) Program. SET-IT participants completed 13 (3-credit) courses including two internships over a two-year period, beginning summer semester. Federal funding paid 50% of tuition fees for the first two cohorts and the first year of the third cohort. The LEA paid 25% of tuition costs for cohorts through 2004. During the past decade, the LEA paid approximately half of each participant’s tuition. Participants were hired as paraeducators and received a salary with full benefits. The participants were allowed to complete their two internships (10 weeks in length) within the school setting in which they worked.

**Recruitment.** Advertising efforts were shared by the IHE and LEA websites and staff. In addition, newspapers, radio, and multi-lingual media outlets were used to recruit. The entry criteria included holding a Bachelor’s degree with a 3.0 overall grade point average and U.S. citizenship. The LEA encouraged current paraeducators, substitute teachers, support staff, and retired individuals to apply to the program. The IHE admissions office required applications to include all transcripts, two letters of reference, an essay speaking to why the applicant wanted to enter the program, resume, a score report indicating passing scores on the Praxis I exam or ACT or GRE, and English proficiency exam scores (if applicable). The IHE and LEA reviewed applications and applicants with necessary scores and letters of reference were invited to interview. The university maintained a satellite campus in the district area where seminars and classes took place in the evenings.
**Course of Study.** Participants completed 39 credit hours of graduate coursework toward a Master of Science in Education with a concentration in mild to moderate disabilities and eligibility for Generic Special Education Certification at the elementary/middle school (grades 1-8) or secondary/adult level (grades 6-12). The courses were required of all special education masters students. The SET-IT participants completed the prescribed series of classes within a two-year timeframe as a group. The core courses included courses titled: Characteristics of Students with Mild / Moderate Disabilities, Instructional Planning and Management in Special Education, Applied Behavioral Programming, Classroom Management, Collaborative Programming, Legal Aspects, Service Systems and Current Issues in Special Education and Access to General Education Curriculum with Technology Accommodations. For the first ten years of the program, the partners from the university and district also co-taught a seminar that participants and their mentor teachers completed together to experience guided co-planning and collaborative problem solving with a larger group. After the first ten years, the seminars were held in conjunction with the internships. During the first ten years of the program, participants completed internships in two different settings. After the first ten years, the participants remained in the same school for both internships.

**Instruments**

Collecting data from participants to inform research questions required developing survey and interview instruments based on previous studies. This process is explained in detail below.

**Survey.** An on-line survey was developed to obtain participants’ perceptions of program features, district experiences, and career intentions. The survey combined and
adapted question items from multiple previously reported peer-reviewed studies (e.g. Billingsley et al., 2004; Morrison, 2010). The survey had five sections including (a) participants’ characteristics, (b) program features (comprised of two dimensions *program features* and *feeling prepared*), (c) mentoring / induction activities (consisting of two dimensions *mentoring* and *induction*), (d) district procedures (comprised of *administrator support* and *work arrangements*), and (e) career intentions.

**Section 1.** Participants were asked to provide personal information regarding their gender, race, age, and prior work experience (including the education field); whether they parented school-aged children, and the extent to which personal finances changed after becoming a special educator. Four questions asked participants to select their (a) highest degree achieved, (b) certification area and students’ age level, and (c) current grades taught, and (d) if they had earned promotions since completing the program. Previous research described similar items (Plash & Piotrowski, 2006; Watlington, Shockley, & Earley, 2004), but this study will add to the literature by comparing retention rates based on recruited and retained SETs’ diverse characteristics.

**Section 2.** This section of the survey collected participants’ perceptions of how well the program recruited, prepared, and retained them. Participants were asked to rate the extent to which they perceived program components on a Likert scale of one (not beneficial) to five (very beneficial). Ten items, adapted from previous research (Boe et al., 2007) were included (e.g., location, placement as para-educator, collaboration with program cohort). Participants then ranked the program features from one to ten based on their perceived value to preparing them to become special educators. This section also asked participants to rate how well they felt the program prepared them for seven specific
job responsibilities (e.g., teaching their subject matter, select and adapting curriculum and instructional materials) on a Likert scale of one (not at all) to five (very well).

Section 3. For this study’s purpose, mentorship was defined as the year the program participant worked in the role of para-educator, under the guidance of a mentor teacher. This component of the survey measured participants’ perceptions of the mentor-mentee relationship during the first year in the classroom while taking coursework in the program. The survey items comprising the mentoring activities were adapted from Morrison’s (2010) survey, who reported the internal consistency for nine items related to mentoring was .95 and eight items for induction was .87. However, previous research limited samples to novice SETs and did not specify mentorship during field placements. For this study, participants rated the extent to which they agreed with 16 relevant statements using a Likert-scale of one (strongly disagree) to five (strongly agree) (e.g., my mentor encouraged reflective practice; my mentor helped me write IEPs).

The literature defined induction as relating to the first one to five years of teaching after graduation from training programs and survey questions referred to a variety of supports provided by school districts. This study’s induction-related survey items adapted Billingsley’s and colleagues’ (2004) items, which held internal consistency reliability of .73. Items asked participants to rate seven (7) induction activities by frequency on a Likert-scale of one (never) to five (daily) and helpfulness on a Likert scale of one (not helpful) to five (very helpful) (e.g., regular meetings with other new teachers; in-service or staff development). The final questions for this section adapted 16 survey items from Morrison’s (2010) rating scale used to rate the overall effectiveness of support received from mentorship (post program completion) and induction activities on
a five-point Likert scale ranging from one (not at all effective) to five (very effective). Items included in this survey also asked the extent to which induction activities benefited participants’ (a) teaching skills, (b) confidence as a teacher, (c) effectiveness as a teacher, and (d) students’ learning.

Section 4. Administrator support and work arrangements compose the district procedures domain of the survey (Cross & Billingsley, 1994; Cancio et al., 2013; Morrison, 2010). This section of the survey included the following items comprising district procedures: Nine items measured administrator support (Albrecht et al., 2009; Morrison, 2010) and 25 items measured work arrangements (Albrecht et al., 2009; Billingsley et al., 2004; Morrison, 2010). Participants responded on a Likert scale of one (strongly disagree) to five (strongly agree) to the statements, “my administrator (a) supports my actions and ideas, (b) shows appreciation of my work, (c) assists me with behavior.” While most previous research used descriptive analyses, Cancio and colleagues (2013) reported an internal consistency reliability alpha of .907 for three items repeated in this study, and Billingsley and colleagues (2004) reported internal consistency of .91 for repeated administrative support items.

Work arrangements encompassed constructs from previous literature such as school climate (Billingsley et al., 2004) and working conditions (Morrison, 2010, with strong internal consistency reliability, .95). This survey used service delivery model as a proxy to measure participants’ perceptions of relationships with colleagues, because Tyler and Brunner (2014) suggested that imposed expectations such as large caseloads increased stress and attrition. For this survey, participants reported frequencies with which they taught students with 14 disability codes, which may suggest classroom
diversity requires prepared special educators to meet students’ needs. The final item measuring work arrangements related to a study by Albrecht and colleagues (2009), who found that the implementation of school-wide PBIS significantly predicted novice SETs’ intentions to remain in the field. The survey asked participants to report their school’s use of school-wide behavior programs, such as PBIS and point and level systems.

**Section 5.** Career intentions were defined as participants’ reported engagement in, commitment to, and intentions to remain in the field of special education. In this part of the survey, the participants selected one item (yes, no) to indicate their intentions to remain in special education, including, (a) as long as I am able, (b) until retirement, (c) until something else comes along, (d) leaving as soon as possible, or (e) undecided. Previous research by Billingsley (2004b), Morrison (2010), and Boe (2014) reported mixed results based on the number of response choices for this construct, with concerns about fewer choices leading participants to select “undecided.” To avoid ambiguity, this survey offered 11 choices that were collapsed into seven levels. The new variable, intent included a value of one at the lowest end, for, ‘I never worked as a special educator,’” to, seven for, “I was promoted and train special educators currently.” Billingsley et al. (2004) grouped participants based on career intention (e.g. undecided, until retirement, leave in 10 years or less). This study investigated intention dependent upon partnership program perceptions. Participants’ self-reported commitment to the field were measured using their agreements on a Likert scale of one (strongly disagree) to five (strongly agree) with statements such as, “this profession really inspires the very best in me; I have strong skills in behavior management.” The final question on the survey asked respondents if they would be willing to participate in a 15-minute telephone follow-up interview
designed to solicit their specific opinions and concerns about the preparation program and its relevance to their commitment to teaching. The complete survey is available in Appendix A.

**Interview.** A set of eight open-ended questions to be used in a telephone conversation was developed to add depth to quantitative findings. Interview questions were adapted from previous studies (see Morewood & Condo, 2012; Morrison, 2010; Nance & Calabrese, 2009). The interview questions were designed to capture participants’ personal accounts of their experiences with their cohorts, as well as what they remembered and valued most about each stage of their career, and where they see themselves in the future. Three special education researchers reviewed interview questions for clarity before use in the study and questions were revised based on their feedback. The interview consisted of several open-ended questions and concluded with a few forced choice questions asking participants’ intent to remain in the field, and for personal characteristics. A copy of the interview protocol is provided in Appendix B.

**Design and Procedures**

A mixed method quantitative and qualitative design was used to triangulate data and confirm findings. The study introduced bias by selecting a sample of graduates from the same university associated with the researcher. Quantitative data informed patterns of relationships within and between groups based on career phase, program perceptions, retention, and career intentions. Qualitative data collected from open-ended survey responses and interviews helped explain findings from quantitative analyses of IHE-LEA data and survey responses.
Procedures involved collecting data from three sources and creating variables. First, the final list of partnership program participants generated a new database to analyze participants’ personal characteristics and retention. Second, retained participants were recruited to complete the survey. Third, survey participants were asked to elaborate on their responses during interviews. After data had been collected, variables were created. The following sections explain each procedure supporting this study’s research design.

Data collection. To obtain partnership program graduates’ retention rates, the IHE database of graduates was compared to the LEA’s published list of employed educators. Between the years 1994 and 2014, an Excel spreadsheet listed students enrolled in the program, along with codes for race, gender, graduation year, and LEA placement location. The initial spreadsheet included notes from the IHE program administrator, who communicated with program graduates informally to gather information about possible name changes and redundancies. The LEA internet-based staff listing was searched, and placement locations and email addresses were added to the spreadsheet. For inter-rater reliability, each enrollment listing in the IHE spreadsheet was crosschecked with the LEA database.

The first list included 172 participants, and they were assigned a code of novice (graduated from years 2010 through 2014) or veterans (graduated before 2010). Teachers within their first five years are considered novices and teachers who remain in the field for longer than five years are often referred to as veterans. The data were split by group assignment, and SPSS Frequencies was performed to describe program graduates. While all participants \(N = 172\) remained in the list to analyze recruitment and retention rates,
only the 119 LEA employed SETs were sent the online survey. Only program graduates with LEA-based email addresses were eligible to complete the survey. The survey measured participants’ perspectives regarding the program’s influence on their recruitment, preparation, and retention in the LEA.

The survey was disseminated using the web-based survey distribution and collection company, Survey Monkey. Participants received an initial email with a link to the survey in May 2015, and a follow-up email was sent one week later to non-respondents. Three follow-up emails were sent every two weeks after the initial email, and a final email reminder was sent in August 2015 to obtain a final response rate of 59.7% (N = 71). At the conclusion of the survey, participants opted to receive a ten-dollar gift card, to donate five dollars to Special Olympics, or not to receive a thank-you gift for participating. Surveys of graduates from partnership programs typically produce about a 60% return rate (deBettencourt & Howard, 2004; Rosenberg et al., 2007).

The data collection steps protected participants’ privacy, consent, and free will. Only individuals who chose to participate proceeded to the embedded survey link. After consent to participate in the study was obtained, a contingency question asked participants if they graduated from the partnership program and if so, to name their year of graduation. If participants responded "no" to this question, the survey concluded. Participants who did not complete the program, or who were not listed as staff members with email addresses and placements in the LEA public website were excluded. The first question on the survey explicitly informed participants of the study purpose, stated that their information was not linked directly to any identifying information, and asked them to click an "I agree" statement before the software allowed them to proceed.
The second question on the survey asked participants if they would be willing to participate in a follow-up interview. If participants selected "I agree" to participate in the interview, a contingency question was embedded at the end of the survey. The contingency question asked interview participants to click a link to an outside web address where they scheduled a convenient time to be contacted along with their preferred telephone number. The first question asked during the interview was used to obtain consent to participate and allow the researcher to share statements publicly. Through the recruitment process, seven volunteers preferred to complete the interview using open-ended response forms within the Survey Monkey collection system in August 2015.

Survey and interview responses were exported to an Excel spreadsheet using numeric codes or string variables. The data were then imported into SPSS and codes were assigned values. The data were screened and cleaned to prepare it for analyses, which resulted in the removal of three respondents due to their completion of less than 25% of the survey. Missing values for each participant were compared to raw survey data and entered manually when possible. SPSS Missing Values Analysis was performed for each survey item and further explored for each subject. Items associated with independent and dependent variables missing less than five percent of their data were replaced with estimated means produced by the analyses (Tabachnick & Fidell, 2007).

Previous research informed survey and interview development, which facilitated social and construct validity. The survey’s internal consistency of the 54 Likert-type scaled items was strong (\(\alpha = .93\)), measured using SPSS Intra-class Correlation Coefficient for two-way mixed consistency model \([CI_{95} = 0.95, 0.90]\).
**Study Variables.** This section summarizes how each of the study’s variables was constructed. Variables described participants’ characteristics, defined groups, quantified perceptions of IHE-LEA partnerships and career intentions, and measured retention rates.

**Participants’ characteristics.** Program participants ($N = 119$) were eligible and invited to participate in the survey and interviews. The final sample of survey participants consisted of 68 special educators (58.1% response rate), of which 49 (72.1%) were female, and 18 (26.5%) were male. In terms of the participants’ ages, two (2.9%) were between 25 and 30, 11 (16.2%) were between 30 and 35, nine (13.2%) were between 35 and 40, seven (10.3%) were between 40 and 45, six (8.8%) were between 45 and 50, 12 (17.6%) were between 50 and 55, and 21 (30.9%) were over 55 years old. Their race and ethnic profile consisted of 56 (82.4%) European American, four (5.9%) African American, six (8.8%) Hispanic, one (1.5%) Asian and one (1.5%) Native American participant. Most participants completed their Master’s degree through the program as their highest level of educational achievement ($N = 48$, 70.6%), while six (8.8%) also achieved an Educational Specialist or other advanced professional diplomas ($N = 9$, 13.2%).

Before beginning the preparation program, 47 (69.1%) participants held jobs in the field of education, including 37 (54.4%) para-educators, and 39 (58.2%) parented their school-aged children. Nearly 80% ($N = 79$) of participants reported earning a higher salary, and 25.4% ($N = 17$) received promotions after program completion. Participants’ reported certification areas, their students’ grade levels, the types of disabilities they addressed in their classes, and the type of environment in which they mostly taught. Participants included 12 (17.6%) certified in Early Childhood Education,
25 (36.8%) in Elementary Education, 32 (47.1%) in general secondary content areas, two
(2.9%) Mathematics Instructional Leaders and six (8.8%) arts specialty areas. At the
time of reporting, eight (11.8%) taught early childhood, 11 (16.2%) taught elementary, 23
(33.8%) taught middle school, and 24 (35.3%) taught high school. Table 2 summarized
participants’ characteristics analyzed by this investigation (e.g., gender, race, and
previous experience).

A stratified random sample of two members of each career phase (novice and
veteran) who volunteered through the survey participated in semi-structured interviews
(Sindelar et al., 2004). Reports from two novice and two veteran special educators were
included in the study results as anecdotes that countered, corroborated, and extended
survey findings. Participants included three females and one male, three European
Americans and one African American, and their ages ranged between 30 and 60 years old
with five to 13 years of teaching experience.

Dichotomous values were assigned to six personal characteristics. These included
(a) parenting, (b) teaching, (c) one year of school-based experience, (d) one year of
special education experience, (e) lower salary and (f) promotion. SPSS Correlations
indicated significant positive relationships between reports of teaching prior to the
program (r = .248, p < .05), for more than one year (r = .378, p = .001), and reporting a
significantly higher salary after program completion (r = .259, p < .05). Therefore, these
three variables were summed and transformed to a dichotomous variable, prior teacher,
with a value of one indicating meeting, at least, two out of three of the above criteria.
Ultimately, four variables were created to analyze participants’ characteristics (prior
teacher, special education experience, parenting status, and promotion).
**Blocking Variables.** Grouping variables have been set up to compare program perceptions, retention, and career intentions. Career phase assigned participants to novice and veteran groups based on their years retained by the LEA. Groups divided participants’ personal characteristics into high, mid, and low frequencies of personal characteristics not traditionally represented in teacher preparation programs, such as male, non-White, and low-income. To compare participants’ perspectives based on their self-reported intent to remain and commitment to special education, two additional grouping variables, intent, and commit, were created.

**Career Phase.** For most analyses, participants were grouped based on years of experience as a special educator. The grouping variable, *career phase*, describes novice participants with up to five years of experience (*N* = 14, 20.6%), and veteran participants (*N* = 54, 79.4%) with more than five years of experience since graduating from the partnership program. Participants were grouped based on their reported graduation year, and individual surveys were read to confirm that response to questions aligned to their assigned group. Because the survey captured graduation year as a string variable, each datum was screened manually, using the original survey, coded as a four-digit year, and re-coded to the corresponding career phase group (novice = 1, veteran = 2).

**Personal Characteristics Groups** defined three ordinal participant rankings based on their conformity to characteristics aligned with previous research on SETs’ recruitment into alternative certification programs (Billingsley et al., 2014). Participants’ reported their gender, race, prior salary, prior experience as a para-educator, location preference, and parenting status, which composed a sum score. Maximum values applied to male (2), non-White (2), significantly lower prior salary (5), prior para-educator
experience (2), high rating of the program’s location (5), and parenting during the program (2). The sum of these items was divided into three equal groups based on the high, mid, and low probability of non-traditional personal characteristics.

**Intent** and **commit.** Two additional grouping variables were defined by replicating measures from Billingsley’s et al. (2004) study. Intent group defined participants who, (a) were promoted or taught students with disabilities as general educators; (b) intended to stay as long as they are able or will remain until they retire; and (c) intended to remain until a life event occurs, were undecided, or intended to leave as soon as possible. Commitment measured a composite of seven items that asked participants the extent to which they agreed with statements such as, “I am proud to be a part of this field,” with internal consistency reliability of .76 [CI\(_{95}\) = 0.80, 0.59]. The sample was ordered and divided into low, mid, and high commitment groups.

**Independent variables.** Independent variables were constructed from survey data associated with three domains; program features, mentoring and induction activities, and district procedures. The three domains each consisted of two dimensions calculated as composite scores. Then, each domain was calculated by summing and standardizing program dimensions’ composite scores.

For example, the program features domain consisted of the program features dimension and the feeling prepared dimension. The program features dimension variable was computed by summing and standardizing the benefit ratings of 10 program features such as length and tuition support, with an acceptable internal consistency reliability of .76 [CI\(_{95}\) = 0.83, 0.65]. The feeling prepared dimension variable added participants’ rankings and ratings of 10 program features’ benefit to helping them feel prepared for
their careers. Feeling prepared included 17 summed items with an acceptable internal consistency reliability of .73 [CI \(_{95} = 0.75, 0.50\)]. The program features domain variable thus included the standardized sum of 27 items.

Mentoring and induction provided two dimensions to compose its aggregated domain, mentoring and induction activities, with a standardized sum of 39 items. Mentoring described participants’ experiences during their field placements based on 16 items. The summed scales created a composite score with strong internal consistency reliability of .95 [CI \(_{95} = 0.96, 0.93\)]. Induction described participants’ self-reported frequencies and effectiveness of receiving in-school supports during their first five years as full-time SETs in the LEA, based on 23 items. Internal consistency reliability for induction was good for this study, \(\alpha = .86\) [CI \(_{95} = 0.91, 0.81\)].

Administrative supports and work arrangements composed the district procedures domain, with a standardized sum of 34 items. Nine scale items described participants’ self-reported experiences with administrators’ supportive practices, with strong internal consistency reliability, \(\alpha = .96\) [CI \(_{95} = 0.98, 0.95\)]. Work arrangements represented 25 items used to approximate working conditions and stress. The first ten items added participants’ case management responsibilities (e.g., writing progress reports, yes = 1). Participants reported frequencies (yes = 1) with which they taught students with 14 disability codes. An ordinal score (Range = 4) ranked participants’ self-reported service delivery model, for which maximum values reflected team teaching and departmentalization, in which teachers work collaboratively: Minimum values reflected self-contained and resource models suggesting less connection with other teachers. Finally, an ordinal score for school-wide PBIS implementation (Range = 4) was added to
form the work arrangements composite, which held acceptable internal consistency reliability, $\alpha = .74$ ($CI_{95} = 0.83, 0.65$).

**Dependent variables.** This study aimed to extend research on SETs retention and career intentions by adapting items and procedures used by Billingsley and colleagues (2004) and Morrison (2010). They suggested that using one self-reported survey item to indicate career intentions may not allow for reliable results, and proposed a more robust approach. Therefore, this study used multiple measures to analyze participants’ retention and career intentions. Retention was measured using the IHE-LEA data, to group and compare participants by their retention status. Years retained was measured using survey responses indicating the number of years participants worked as SETs in the LEA since program completion ($Range = 20$). Intent to remain in the field was measured by collapsing ten survey options into seven ordered values, such as “I will remain for as long as I am able,” and “I am undecided.” Commitment to special education was formed using the sum of eight scaled agreements with items such as, “I am proud to be a special educator.” Participants’ intent to remain value was multiplied by the sum of their commitment ratings to create a robust measure of career intentions. The career intentions variable produced acceptable internal consistency for eight items, $\alpha = .75$ ($CI_{95} = 0.78, 0.54$), which supported previous researchers’ suggestions.

Missing data required estimating intention values for ten participants. To estimate intention values, all individual surveys were manually reviewed to compare survey responses to three questions related to participants’ graduation year, current employment status, and commitment to special education. Through this process, responses were carefully screened to replace missing and misinterpreted data with exact or strongly
implied survey responses. For example, 11 participants reported they ‘no longer’ work as
SETs, but further inspection of additional responses clarified that seven of them had been
promoted and train other special educators. For this reason, their response was re-coded
to a value of seven (promoted). Likewise, four participants “no longer worked as a
special educator” but reported they were general educators teaching students with
disabilities (SWD). Their intent scale score was re-coded to four (general educator
teaching SWD). One participant reported that she had not yet worked in the district, but
was excited to start. Her responses to questions related to commitment were filled with
neutral values, and her intent was coded to six, (as long as I am able.)

To review, 17 variables were created for this study. Five variables grouped
participants by retention status, career phase, personal characteristics, intent, and
commitment. Six program dimensions produced three domains; (a) program features and
feeling prepared formed the program features domain, (b) mentoring and induction
formed the mentoring and induction activities domain, and (c) administrative supports
and work arrangements formed the district procedures domain. Two dependent variables
were used to measure years’ retained and career intentions. The product of intent and
commitment formed the career intentions variable. The next section explains how
variables were used to analyze relationships between participants’ personal
characteristics, perspectives toward partnership program aspects, their retention, and their
career intentions.

**Analyses.** SPSS procedures included descriptive statistics, crosstabs, correlations,
regressions, and analyses of variance (ANOVAs) to answer research questions. First,
descriptive statistics for each variable were evaluated. Unstandardized and standardized
independent and dependent variables met assumptions for distribution and linearity. Blocking variables each held unequal group sizes. Fitzgerald, Rumrill, and Wiley (2011) suggested that special education research with incompatible group sizes use the non-parametric H-test, Kruskal-Wallis One-way ANOVA technique to investigate significant differences between ranked means of more than two independent groups. Mann-Whitney U-tests compared differences between the two career phase groups with unequal sample sizes.

To answer research question one, to what extent did the IHE-LEA partnership program recruit, graduate, and retain diverse SETs, SPSS Crosstabs were used to examine differences between groups based on their retention status recorded in the IHE-LEA database. Then, personal characteristics groups and program features domain scores were regressed on years retained. Open-ended survey and interview responses added to quantitative findings, as participants’ reported what aspects of the program led to their recruitment and retention throughout their preparation program.

Research question two investigated relationships between career phase, personal characteristics, and career intentions using a two-block Standard Regression. Participants' open-ended responses further explained participants' prior teaching experience, promotion status, prior experience in special education, and parenting status. Descriptive and qualitative findings elaborated differences between novices and veterans.

The third research question examined relationships between participants’ perspectives toward the six program dimensions and their career intentions based on their career phase using SPSS Correlations. Differences between patterns of relationships
based on participants’ career phases are explored using descriptive analyses of survey and interview responses.

To understand the significance of these relationships, a three-block Standard Regression was performed to answer research question four. Additional explorations used Mann-Whitney U tests and Kruskal-Wallis One-Way ANOVA tests to identify if participants’ perspectives of program features significantly differed based on intent and commitment grouping assignments. Results of descriptive, inferential, and qualitative analyses are expected to support the research hypothesis: The partnership program recruited, prepared, and retained diverse SETs committed to the field of special education as a result of program features, mentoring and induction activities, and district procedures designed to support them.
CHAPTER FOUR

RESULTS

This investigation proposed to (a) determine if an IHE-LEA partnership program successfully recruited, graduated, and retained SETs in the field; (b) determine if participants’ characteristics and perspectives of program features, mentoring, induction activities and district procedures predicted their career intentions; and (c) evaluate specific program features as promising practices for recruiting, preparing, and retaining special educators committed to their field.

Research Question 1

Recruitment and retention. The results indicate to what extent the IHE-LEA partnership program recruited, trained, and retained SETs. The SPSS Crosstabs process was used to determine program graduates’ retention rates, which were confirmed by a regression analysis of participants’ characteristics on years retained. Findings indicated that of 172 graduates, at minimum 119 (69.2%) were retained and 53 (30.8%) could not be confirmed as retained. Novices (N = 18) remained in the LEA at a ratio of 17 (94.4%) to one (5.5%); veterans (N = 154) remained in the LEA at a ratio of 102 (66.2%) to 52 (33.8%). A greater than expected proportion of novice SETs were retained ($\chi^2 [1, N = 172] = 6.02$ $p < .05$). Table 1 compares participants’ gender, race, and career phase by their retention status.

Closer inspection of frequency data indicated that the group of non-recruited (N = 53) participants decreased with time across cohort membership, along with the enrollment of participants in the program. For the first twelve years of the program, an average of 12.2 participants graduated from each cohort, with a mean of 2.9 (24%) for each cohort that was not available to recruit through district-based emails. The
subsequent six cohorts graduated an average of 4.2 participants, and an average of 0.5 who were not available to recruit. SPSS Frequencies using survey data further explained veterans’ retention. Veteran participants graduated from the program an average of 11.5 years ago, compared to novices’ 2.5 years. Most veteran participants ($N = 29$, 53.7%) reported their age was over 50 while most novices ($N = 8$, 57.1%) were younger than 40 years old.

The preparation program over the span of 20 years recruited and graduated 36 (20.9%) participants from traditionally under-represented racial groups. Of 133 (77.3%) graduates that reported race, the group included 13 (9.7%) African Americans, 11 (8.3%) Asians, ten (9.7%) Hispanics, one (1.0%) Native–American, and one (1.0%) other. Results indicated no significant difference between retained and unconfirmed graduates for traditional and under-represented race groups [$x^2 (1, N = 133) = .08, p > .05$]. However, of 171 (99.4%) that reported gender, the group included 34 (19.9%) males and 137 (80.1%) females. Results from Crosstabs indicated a significant difference between retained and unconfirmed graduates for gender [$x^2 (1, N = 171) = 12.1, p < .01$]. More male graduates were retained in the district than was statistically expected.

The following procedures determined if participants’ personal characteristics (gender, race, income, parenting status, previous employment, location preference) significantly predicted their positive perspectives toward program features designed to recruit them, as well as the number of years they remained in the LEA. Table 2 compares personal characteristics by career phase, and Table 3 summarizes groups’ means and standard deviations for program features and years' retained. The grouping variable, participants’ characteristics, positively and significantly predicted high program features
scores, $F(1, 66) = 4.45, p < .05$ and years retained in the LEA $F(1, 66) = 13.47, p < .001$. Participants with non-traditional characteristics in teacher preparation (e.g., male, culturally diverse, lower income, working parents, previous school-based work experience, and location preference) rated program recruitment features with high scores. They remained in the LEA for a mean of 12.1 years ($SD = 4.5$) compared to the group with traditional teacher characteristics, with a mean of 7.1 years ($SD = 4.7$). See Table 4 for results of the One-way ANOVA.

Participants with non-traditional characteristics were more likely to be male, from a non-White background, reported earning a much higher salary after program completion, parented school-age children throughout their training, worked in schools before beginning the program, and rated the location of the program as very beneficial to their recruitment. One participant stated that SET-IT, “was a family friendly two-year program in special education that provided night classes and an opportunity to work in the field of education. I was working as a para-educator, and this was a practical way to become a certified teacher.” Four graduates in the first few years, when the grant was federally funded, left the LEA after graduation to work as special educators for different districts because the LEA did not hire them immediately after graduating from the program. Recent graduates reported that one individual continued to take graduate classes, one continued to work as a para-educator, and one left shortly after to work as a childcare center director. Responses from veterans indicated that family circumstances were the strongest reason for leaving the LEA. (See Table 5 for reported reasons graduates left the LEA.)
The first research question asked if an IHE–LEA partnership program retained the special educators it trained. Results from this investigation supported the hypothesis. Over the 20 year period, 69.2% \((N = 119)\) of partnership program participants remained in the LEA, which was greater than the annual national retention rate of 60% reported by Boe (2014).

**Research Question 2**

**Personal characteristics and intention.** What is the relationship between group (novice and veteran special educators), the personal characteristics variable set (prior teacher, prior special education experience, parenting, promotion) and career intentions? Preliminary analyses using a Mann-Whitney U Test showed that veterans’ self-reported career intentions \((Median = .36)\) were significantly greater than novices’ \((Median = -.66)\), \(U = 218.0, p = .01\). To investigate the relationship between career phase, personal characteristics, and career intentions, a two-block model was entered into an SPSS Standard Regression. Pearson correlations between intention \((M = 0, SD = 1)\), career phase \((M = 1.89, SD = .41)\), and the personal characteristics variable set was significant, \(r (68) = .49, p < .01\). The regression equation was determined to be \(Y' = -1.19 + .59X_{\text{career phase}} + .67X_{\text{prior teacher}} - .12X_{\text{prior specialed}} + .19X_{\text{parenting}} - .21X_{\text{promotion}}\); this equation was significant \(F (5, 67) = 3.92, p < .01\). Career phase and promotion were significant individual predictors of intention scores. Intent scores were higher for veterans but lower for promoted participants (most of whom were also veterans). Statistics for the three-model Regression detailed personal characteristics predictive of career intentions in Table 6.
Table 7 summarizes novices and veterans’ survey responses to questions regarding their intent to remain and their commitment to the field of special education. Novice participants’ mean commitment and career intentions composite scores ($M = 26.9$, $SD = 4.1$; $M = 108.3$, $SD = 57.5$ respectively) were lower than veterans ($M = 30.0$, $SD = 3.1$; $M = 155.3$, $SD = 50.3$ respectively). While most ($N = 26$, 48.1%) veterans reported intent to remain for as long as they are able, only five (35.7%) novices intended to remain to the same extent. Instead, the same number of novices were undecided about their career intent ($N = 5$, 35.7%).

Both novice and veteran participants shared their strong commitment to the special education field, supported by 14 statements that they “love” their “vocation” and find it “rewarding” to “make a difference” in students’ lives. The four participants who completed the interview all shared their intent to remain in the district as long as possible, or until they retire. Participants from each career phase responded with similar comments to the prompt, “please describe how you feel about being a special educator,” (see Table 8) but veterans made positive specific statements about feeling “rewarded” when their students with significant challenges learn and grow. Nineteen survey participants (27.9%) reported earning or applying for promotions (listed in Table 9) since program graduation, but only one of them was a novice.

Although the variables prior teacher, prior special education, and parenting did not significantly predict career intentions, descriptive data showed that most participants shared similar personal characteristics. The variable prior teaching represented 46 (67.6%) participants who worked in a school setting before the program, and 54 (91.1%) participants reported prior experience working as para-educators.
The second research question asked if career intentions could be predicted by participants’ career phase, previous teaching and parenting experiences, and promotion status. Findings suggested that this sample of participants includes veteran SETs strongly committed to the field, who intend to remain for as long as possible, compared to less determined novice SETs, who reported strong commitment to special education. Previous experiences working with children or in schools were very common for this sample, which is unlike traditional pre-service teachers. Receiving promotions significantly predicted lower career intentions.

**Research Question 3**

**Program Perspectives.** The third research question addressed if any significant relationships exist between SET-IT graduates’ career phase, perspectives of program features, feeling prepared, mentoring, induction, administrative support, work arrangements, and career intentions. SPSS Correlations between standardized variables showed significant positive relationships between career phase, program features, and intention \((p < .01)\). Split by career phase; data revealed moderate linkages between a triad of mentoring, administrator support and program features, which significantly and positively correlated to intention scores for novices. Figures three through nine depict detailed survey responses, and Table 10 specifies correlations between program dimensions.

As illustrated in Table 10, the strongest relationships for veterans resembled their career chronology. Significant, positive relationships existed between program features and induction, which correlated with administrative support followed by career intentions \((p < .01)\). Weaker but significant relationships existed between program features,
mentoring, and career intentions, $p < .05$. Pearson correlations also revealed significant negative relationships between work arrangements and induction, and between feeling prepared and administrative support. Veterans reported positive perspectives toward the program features, mentoring, induction, administrative support and career intentions. High work arrangements related to infrequent and less effective ratings of induction support, and frequent administrator support related to lower feelings of preparedness. The following section describes participants’ perspectives based on the relationships identified in the quantitative analyses.

**Program features.** Program features were significantly related to career phase and career intentions ($r = 0.34$, $p < .01$ for both variables). Five program features were rated “very beneficial” for recruiting and retaining at least 30 (44.1%) participants, including program length, location, placement as a para-educator, and collaboration with cohorts. Veterans rated collaboration with their cohort, program length, program cost, and mentor teacher as “beneficial” or “very beneficial” ratings. Interview responses echoed survey program features’ ratings. A variety of program features were listed as “most helpful to (you) as a special educator;” including the LEA partnership, placement as a para-educator, and coursework in behavior management. One participant commented, (the) “cohort stability - finishing with 15 others, together” was most helpful. Interview responses referenced the helpfulness of coursework in behavior modification, lesson planning, and evidence-based practices, as well as on-going support from the program director, financial assistance, and the reasonable cost of courses. One participant stated, “The most important part of the program was the in-school work as paraeducators and student teachers.”
Mentoring. In the SET-IT program, participants worked with mentors or “collaborative teachers” during their field placements. SPSS Correlations showed that mentoring and career intentions shared strong positive relationships, though more so for novices than for veterans. Figure 5 depicts a stacked bar chart comparing perspectives toward mentoring by career phases. SPSS Frequencies indicated four highly rated items: (a) My mentor treated me as a professional; (b) my mentor was usually available to help me; (c) my mentor observed my teaching and feedback, and (d) my mentor recognized my accomplishments. Each mentoring item received, at least, twenty “agree” and/or “strongly agree” ratings, bar one; 23 individuals reported that they disagreed or strongly disagreed with the statement, “my mentor helped me write IEPs.” Fewer novices than veterans agreed with the statements; “my mentor provided guidelines for communicating with parents,” and, “my mentor helped me plan lessons.” Interview responses supported quantitative data: “My intern experiences were offered through great placements at the middle and elementary school level, and I feel that I had wonderful mentor teachers. It gave me strong insight to program models in the county where I ended up taking a position. I became well informed and grateful as a result.” Another student reported, “I worked at a separate school for students with special needs during my two years in the SET-IT program where the students had extreme behavior issues. This experience prepared me for anything.” Regarding placement with a mentor teacher, a novice SET claimed, “Both the induction and culmination internships were about the same- both great! Oddly, I did more teaching during my internships than I did my first year as a beginning teacher.” Another novice participating SET summarized her experience, “the
supervising teachers were excellent and helpful. I always felt supported. I felt prepared as a beginning teacher.”

Prompted to describe relationships with mentor teachers, cohort members, and other professionals, only one interview participant stated she had a “great relationship….with mentor in (the) beginning (of the) year.” All interview participants described their relationships during the program, at their current schools, and with their administrators as “professional,” using terms such as “mostly business” and “productive.” One veteran SET stated that she “trusted all of them,” while one novice shared that “gossiping...added to the stress of an already very challenging and stressful program.” Overall, findings revealed that the mentor –participant relationship held high value for novices and veterans. The professional dynamic appeared to lead SET-IT candidates toward favorable outcomes.

**Administrative Support.** Correlations suggested positive administrator support significantly related to career intentions more so for veterans than for novices. Figure 6 compares veterans and novices’ perceptions of administrators’ support. According to SPSS Frequencies, all nine administrative support items were normally distributed for the sample (N = 68). On average, 65% of participants reported “agree,” or “strongly agree” to five statements. These included, my administrator supports my actions and ideas, assures me that he or she has confidence in my ability, shows appreciation of my work, notices my efforts, and backs me up when I need it. However, “my administrator assists me with behavior,” received 18 (26.5%) ratings of disagree or strongly disagree. Interview participants specifically referred to the helpfulness administrative support, special education team members, and the school psychologist. Other participants
specified that the functional life skills curriculum and community-based services, an adequate supply of resources, the ability to use them effectively, and professional development opportunities were helpful.

**Induction.** Veterans’ responses suggested positive perspectives toward the program and indication support related indirectly to positive career intentions. Novices’ responses were not significantly related to other program factors. Figures 7 and 8 show participants perceptions of the frequencies of in-school supports and their effectiveness, compared across career phases. Induction ratings described the frequency and effectiveness of supports from colleagues during the first five years of teaching. Participants in both career phases shared their reports of infrequent administrator support during their induction phase. Most participants received “as needed” assistance from building administrators ($N = 51, 75.0\%$), and consultants or supervisors ($N = 52, 76.5\%$). Only eight (11.8%) participants received formal monthly mentoring, and 32 (47.1%) never received a mentor after SET-IT graduation. Informal help from other teachers and colleagues occurred daily for 42.9% ($N = 6$) of novices, compared to 14.8% ($N = 8$) of veteran participants, and received the highest rates of “very effective” for all participants ($N = 49, 72.1\%$). Participants tended to rate regular meetings with other new teachers as somewhat or not at all effective ($N = 28, 41.2\%$).

**Feeling prepared.** SPSS Correlations suggested that veterans who felt less prepared experienced less administrator support. In general, participants felt “adequately” to “very well prepared” for professional responsibilities. Over 90% of participants reported feeling well prepared or very well prepared to select and adapt curriculum and instructional materials, plan lessons effectively, use a variety of
instructional methods, and assess students. Slightly fewer participants \((N = 58, 84.8\%)\) felt prepared to handle a range of classroom management or discipline situations and to teach their subject matter \((N = 54, 78.8\%)\). The fewest participants \((N = 40, 58.8\%)\) felt prepared to use computers in instruction. In-school supports received more than 50% of effective and very effective ratings for helping veterans increase their effectiveness and confidence as teachers and improving teaching skills and student learning. On the other hand, fewer than 35% of novices attributed in-school supports to increasing their teaching confidence or student learning. On all items except one, veterans ranked feeling prepared higher than novices did. Novices felt more prepared to teach their subject matter, on average, compared to veterans. Figure 3 detailed a comparison of novice and veteran participants’ self-reported feelings of preparedness as they related to program features.

**Work arrangements.** According to results from SPSS Correlations, veterans with high work arrangements experienced less induction support. Participants described work arrangements by listing their responsibilities, service delivery models, frequencies of disability categories represented in their classes, and the amount of behavior supports in their schools. Over 70% of novice and veteran participants reported four main responsibilities, all of which were related to writing and updating progress on Individual Education Program (IEP) goals, performance levels, and accommodations. Half of the participants also facilitated IEP meetings, conducted formal assessments, and completed the IEP process for students on their caseloads. The greatest frequency of participants taught using a self-contained service delivery model, in which they provided all content-area instruction to their students, \(n_{\text{novice}} = 5 (35.7\%)\), \(n_{\text{veteran}} = 14 (25.9\%)\). The most frequent disability category represented in both novice and veterans’ classes were
ADHD, Autism, and specific learning disability. The fewest participants \( N = 11, 16\% \) taught students with severe and profound disabilities. The majority of participants reported their schools’ full implementation of PBIS, \( n_{\text{novice}} = 7 \ (50\%), \ n_{\text{veteran}} = 35 \ (63\%) \).

On the other hand, interview participants frequently reported that demanding paperwork responsibilities \( N = 11 \), feeling undervalued \( N = 4 \), and inadequate administrative support \( N = 5 \) frequently caused stress. Novice participants specified challenges with paperwork, caseload, time management, insufficient administrative support, and feeling undervalued compared to their general educator counterparts. Veteran participants also reported stress due to paperwork responsibilities and feeling undervalued by other professionals.

**Research Question 4**

**Helpful program aspects.** To what extent do novice and veteran teachers’ career intentions differ based their perspectives of program features, feeling prepared, mentoring and induction activities, administrative support, and work arrangements. A three-step Standard Regression was performed to determine relationships between the variable set career phase, three domains, and their six dimensions regarding their influence on intention scores. Pearson Correlations for the variable set were significant, \( r (59) = .59, p < .05 \), with a significant regression equation, \( F (8, 50) = 3.42, p < .01 \). Table 11 summarizes mean and standard deviations for the variables’ composite scores. Independently, the dimensions of program features, mentoring, and administrative support shared significant positive relationships with career intentions \( (r = .33, .34, \text{and } .23 \text{ respectively}) \). In the third model, career phase, the mentoring and induction domain
score, and the dimensions of induction and work arrangements significantly predicted intention scores. Veterans with low work arrangements and low induction ratings reported higher career intentions. Table 12 lists the Regression statistics to show the strength of relationships and confidence intervals for each variable.

Career phase remained significant through three models and was it correlated with career intention scores. Therefore, an additional analysis examined possible differences between novices and veterans’ perspectives. A preliminary Mann-Whitney U Tests investigated differences between novice and veteran participants’ intent and commitment. Results indicated that veteran participants reported significantly greater intent and commitment compared to novices. Most veterans \((N = 26, 48.1\%)\) intended to remain in the LEA for as long as they were able, compared to most novices \((N = 5, 35.7\%)\) who were undecided, \(U = 258.00 \ p < .05\); Veterans’ median commitment score, 29.85 \((SD = 3.28)\) was significantly higher than novices’ median commitment score \((27.29, SD = 3.91), U = 240.00, p = .05\). Although these differences were statistically significant for this sample, the differences lack meaning for the larger population. Specifically, novices tend toward indecision (Morrison, 2010), and their commitment score suggests high ratings for all of the associated items, with a score of 28 indicating they “agreed” to each item. Therefore, participants’ responses from both career phases were combined for subsequent analyses.

This research question seeks to identify helpful program aspects to committed SETs intent to remain in the field. The differences between composite scores for each of the program aspects were examined using a One-Way ANOVA based intent group. Characteristics of participants in each group may be important. The high intent group
included promoted participants and general educators teaching SWD; the mid group contained mostly participants who reported they would remain in the field as long as they were able, and the low group had mostly undecided participants. Internal consistency reliability of composite scores and equal distribution between groups met the assumptions for performing the significance test, although the number of variables entered risked Type I error.

Results specified that feeling prepared scores significantly differed by intent group, $F(2, 67) = 4.94, p = .01$. Table 13 shows the statistical relationships between and within groups. The mid-range intent group’s mean feeling prepared score ($M = .49, SE = .22$) was significantly greater than the low intention group’s mean score, ($M = -.21, SE = .17$) and the high intention group’s score ($M = -.32, SE = .21$). A posthoc Tukey test adjusted for harmonic mean size ($n_{adjusted} = 22.6$) to protect from Type I error, but results should be interpreted with caution. These results minimally suggest that feeling prepared differed based on career intentions. Figure 4 indicated that participants felt prepared to fulfill their various job responsibilities based on their experiences with program features such as coursework, mentoring, and university supervision.

A Kruskal-Wallis One-Way ANOVA was used to determine if program perspectives significantly differed based on participants’ intent to remain in the field. The Kruskal-Wallis H test showed that there was a statistically significant difference in administrator support scores based on the intent group, $x^2(2, N = 68) = 5.907, p < .05$. Promoted participants general educators with SWD reported more frequent supports with better effectiveness than participants who planned to remain as long as possible and those who were undecided or planned to leave.
A Kruskal-Wallis H test showed several significant differences between program perspectives based on commitment level. Ratings of program features and feeling prepared significantly differed by commitment group, $\chi^2(2, N = 68)_{\text{program features}} = 9.41, p < .01$; $\chi^2(2, N = 68)_{\text{feeling prepared}} = 5.87, p < .05$. Administrator support and promotion rankings also significantly differed by commitment group, $\chi^2(2, N = 68)_{\text{administrator support}} = 17.81, p < .001$; $\chi^2(2, N = 68)_{\text{promoted}} = 8.18, p < .01$. Based on the findings of several statistical tests, veterans tended to report positive administrator support and promotions, which contributed to their intentions to remain committed to the field. Veterans’ intent to remain as long as they were able tended to report feeling prepared based on preparation program features. Although novices were largely undecided about their career plans, they reported feeling prepared and committed to the field.
CHAPTER FIVE

DISCUSSION

This chapter summarizes the purpose, methodology, and conclusions of an investigation into the retention and career intentions of special educators prepared and employed through an IHE-LEA partnership program. The chapter begins with an overarching summary, followed by a synthesis of results as they related to previous research. The discussion includes recommendations for future partnership preparation programs and special education teacher preparation research.

The purpose of this investigation was to determine the extent to which university and district partnerships assist with the training and retention of special educators and to determine what factors were most predictive of special educators’ retention. Factors related to 119 Special Education Teacher Immersion Training (SET-IT) program graduates were identified using IHE-LEA data, an online survey, and interviews. The mixed-methods quantitative-qualitative research design incorporated descriptive and inferential statistical analyses. Results suggest that the special educators trained through this partnership remained teaching in the school district at a high rate. Special educators remained in the LEA for a mean of nine years, which was higher than the national average (Boe et al., 2013).

Results illustrated that there were personal characteristics and positive perspectives toward program features, mentoring, induction, and administrator support that predicted positive intentions to remain in the field. Veteran special educators who intended to remain in the field for as long as possible rated the effectiveness of program features higher than novice special educators did. Work arrangements were related to
administrator support effectiveness and career intentions. The following sections discuss findings as they relate to each of the research questions that guided this investigation.

**Recruiting and Retaining Diverse Special Education Teachers**

The first research question addressed the need to determine if a partnership program would assist the school district in recruiting and retaining special education teachers. States must fill an estimated annual demand for 40,000 well-prepared SETs, but many under-prepared individuals fill vacancies (Boe, 2014). Large, urban school districts with high rates of culturally diverse students employ a disproportionally higher rate of under-prepared SETs whose cultural backgrounds frequently lack compatibility with their students (Mason-Williams, 2015). The Every Child Succeeds Act (2015) revised NCLB (2002) by relieving states from hiring highly qualified educators. The new legislation aligns to IDEA (2004) by encouraging states to adopt alternative routes to certification. Connelly and colleagues (2014) evaluated preparation programs and surmised that IHE-LEA partnership programs may offer a cost-effective model for recruiting, preparing, and retaining diverse special educators.

**Recruitment.** The results of this investigation demonstrated that partnership program graduates remained in their special education teaching positions in their school district for an average of nine years. Special educators with non-traditional teacher characteristics (male, culturally diverse, lower income, younger parents, with previous school-based work experience, and who lived near the program’s location) remained in the school district for an average of three more years than the traditionally- characterized special educators (e.g., female, White). The partnership program recruited and retained high rates of males, individuals from culturally and linguistically diverse backgrounds,
parents, classroom teachers, substitute teachers, and para-educators. Many special education teachers reported earning a significantly higher salary after program completion and rated the program’s location as the most beneficial feature that helped recruit them and retain them through the program. Programs such as Teach for America popularized recruiting diverse special educators teaching in urban districts, but this study suggested that experienced adults from the local community offer a recruitment base more likely to remain in their special education positions.

Many partnership program participants in this study reported previous classroom experience. District-employed general education teachers and para-educators completed the partnership program and higher rates than was reported by Rosenberg and colleagues (2007). Also, a third of the veteran participants earned promotions after program completion. Previous research did not discuss the potential of recruiting current general education teachers to obtain career advancement by becoming a special educator. Instead, special education was considered a second choice by general education teachers hired out of their certification area to fill special educator vacancies (Boe, 2006). Historically, general education teachers filling special educator vacancies completed qualitatively different preparation programs, which may have led to frustration and a high turnover rate (Boe et al., 2008). Only two of this investigation’s participants transferred (within the district) to general education after they completed the partnership program. Partnership programs interested in diversifying their special education teacher workforce might consider appealing to current district employees seeking career advancement and Master’s degrees.
The majority of the special education teachers with non-traditional characteristics reported that the partnership program’s location, cohort model, length, para-educator placement, and tuition support were very beneficial to recruiting and retaining them in the preparation program. These findings are important as partnership programs aim to diversify the workforce because previous programs offered similar supports without focusing recruitment efforts on diverse candidates (Glazerman et al., 2006). Only one study directly aimed to recruit Native American participants who completed coursework at the same location as their field placements near their homes (Heimbecker et al., 2002). Mason-Williams (2015) suggested that recruiting diverse special educators for high-needs schools could help fill 40% of vacancies. Focusing recruitment on local, culturally and linguistically diverse community members with modest incomes and young families might likely assist special educators to remain in the field. Tyler, Cantou-Clarke, Easterling, and Klepper (2003) and Williams et al. (2010) also found these strategies to be successful.

Retention. This study used multiple measures to analyze special educators’ retention, including employment rates, the number of years they remained, their intent to continue in their positions, and their overall commitment to the special education field. Results showed that diverse special educators completed their graduate level preparation program and remained in their sponsoring district at high rates. Only four individuals did not complete the partnership program, compared to a 25% to 35% attrition rate for other programs (Esposito & Lal, 2005; Glomb et al., 2009). High rates of novice special education teachers remained in the sponsoring school district. Boe (2014) estimated that at least 25% of novice special educators tended to leave their jobs to escape the education
field within five years. This study extended previous research by comparing retention between career phases and found that over half of veteran special education teachers remained in the school district. Comparatively, Glomb and colleagues (2009) reported that a quarter of their rurally placed partnership program graduates remained in their sponsoring states beyond their novice teaching years.

Most of the special education teachers reported they were likely to stay in the field for as long as they are able or until they retire (61.7%), and less than a quarter of them (22.1%) were undecided or planned to remain unless a significant life event influenced them. Two participants reported they would leave as soon as possible due to overwhelming work arrangements. Special educators from the partnership program reported greater intent and commitment compared to previous research. For example, Billingsley and colleagues (2004) found that 51.8% intended to remain, and 48.3% considered leaving or were undecided. Fish and Stephens (2009) reported that about 70% intended to remain for the next five years. The results from this study complimented an evaluation of preparation programs that found that partnership programs trained and retained para-educators with more cost-effectiveness than other alternative program types (Sindelar et al., 2012).

This study’s special education teachers expressed the rewarding feelings they experienced when their students succeeded as a key factor related to their commitment to special education. Special education teachers reported they were proud to tell others they were a part of the profession and that they feel effective as special educators. These results support conclusions drawn by Dai et al. (2007) and Guarino et al. (2006), who found that diverse teachers with altruistic motivation, close community ties, and financial
compensation were attracted to completing teacher preparation programs and tended to
remain employed by sponsoring school districts.

Findings from this investigation add to the special education teacher preparation
field by identifying a target group of individuals to recruit and train. Partnership
programs tended to attract a more closely representative group of males and culturally
diverse individuals local to their school districts with parenting or classroom experience.
Compared to previous studies, partnership program participants remained in the field and
reported long-term career intentions and commitment to the field. The current national
demand for special educators exceeds the supply, but districts should pause to consider
their investments when filling vacancies. The literature base suggests personal
characteristics predictive of special educators’ recruitment that may help diversify and
retain the workforce.

Novice and Veteran Special Education Teachers

The third research question investigated relationships between participants’ career
phase, perspectives toward partnership programs and career intentions. This study found
that career phase was the strongest predictor of career intentions, and veterans were
significantly more intent to remain in the field. Previous research on special education
teachers’ retention focused on retaining novices within their first five years (e.g.,
Morrison, 2010). Although novices represented less than half of the special education
teachers, one stated she planned to special education teacher leave the field, and six were
undecided. These findings counter Berry’s and colleagues (2011) findings that 42% of
novices tend to leave the field within five years.
This study found that novices’ career intentions depended upon contributions to their preparation from the partnership between the IHE and LEA. Novice special education teachers’ perspectives of program features, mentoring, administrators’ support, and career intentions were related. Specifically, novices’ mentors observed their teaching and provided feedback, helped with student behaviors, provided accessible professional support, and acted as model teachers. Novices valued administrators’ assistance with behavior and feeling appreciated. Novices rated program location, length, and tuition benefit, coursework and placement as a para-educator as most beneficial to preparing them to become special educators. Collaborative efforts to provide financial support and mentors, as well as meaningful coursework and supervisory support related to novices’ intent to remain and commitment to special education. One graduate-level partnership program with similar participants’ characteristics, assigned mentors, stipend-based incentives, and cohort relationships successfully retained 100% of their special education teachers into their second year of teaching (deBettencourt & Howard, 2004). These findings support Cochran-Smith and colleagues (2011) conclusion based on their review of ten studies predicting retention: selective preparation programs with coursework, field experiences and mentoring, aligned to specific teaching contexts, produced more efficient teachers who remained in the field longer than average.

One surprising finding from this study suggested that neither novices nor veterans experienced formal induction programs or mentorships during their initial years as special education teachers. Most special education teachers preferred informal supports from colleagues to frequent administrator supports and rated formal meetings with other new teachers lower than other program aspects. Research on the influence of induction
on retention showed that school climate and work arrangements were more predictive of career intentions than frequency and helpfulness of in-school supports (Billingsley et al., 2004; Morrison, 2010). Formal induction programs were instituted to unite a close-knit group of new teachers in the same school (Kennedy & Burstein, 2004), or to train novices from different universities on district policies (Sindelar et al., 2004). The special education teachers in this study completed a cohort-modeled partnership program and extensive field experiences, which cultivated community membership and district policy awareness before their induction period. Induction did not appear necessary, based on novices’ high retention rate, commitment to the field, lack of relationship between work arrangements and career intentions, and statements related to the rewarding aspects of their jobs. This finding, along with previous research on induction, further compliments Sindelar and colleagues (2012) suggestion that partnership programs may offer one cost-effective way to train and retain special educators.

For veterans, induction had a negative relationship with career intentions, which was increased by work arrangements. A substantial number of veterans experienced job stress, especially during their induction period, which was measured most by the frequency and helpfulness of in-school supports. Given that only one veteran planned to leave the field, these findings seem more indicative of participants’ resiliency in the face of challenges and infrequent support. This study’s qualitative findings supported research on veterans’ self-reports of feeling undervalued by colleagues, overwhelmed by paperwork, and not given sufficient time to plan appropriate instruction (Nance & Calabrese, 2009). However, participants repeatedly remarked that the job rewards outweighed its stressors.
Previous research was supported this study’s findings that veterans remained in the LEA because they enjoyed teaching students with disabilities, and that challenges with planning, collaborating, paperwork, and supervising adults required considerable effort (Fish & Stephens, 2009; Stephens & Fish, 2010). More than 50% of veterans fulfilled multiple case management responsibilities and over 70% taught students with Autism, ADHD, and learning disabilities. The largest group of veterans ($N = 36, 64.6\%$) reported intentions to remain in the field for as long as possible or until retirement. This group also reported significantly higher program features’ ratings that helped them feel prepared for their careers.

Initial placement as a para-educator seemed to facilitate veterans’ feelings of preparedness for the myriad of job responsibilities they faced. Veterans rated the program features higher than novices did, and they rated their placement as a para-educator as the most beneficial. Veteran special education teachers who received promotions also rated placement as a para-educator as most beneficial. Seven veterans reported receiving promotions in the school district, from team leader positions to one supervisor of special education at the district level. Sindelar and colleagues (2004) found that principals seemed to prefer para-educators who became SETs, perhaps because they had served the school in multiple capacities and had achieved credibility. Administrative support was positively related to career intentions.

In sum, novices and veterans both valued partnership program features, but aspects carried different weight during their careers. For novices, completing the program coursework and field placement in convenient locations, with district financial and administrators’ support were necessary. Novices’ mentors and cohorts also played
important roles in their retention. For veterans, the preparation program made them feel highly prepared to teach, assess, and manage students’ behavior. The partnership also helped them build a network of colleagues from their cohort, supportive, informal relationships, and positive connections with administrators. Preparation and professional networks appeared to help special education teachers cope with job stressors throughout their careers, and may have influenced their job satisfaction and promotions. These findings support two decades of research by Boe and colleagues (most recently synthesized in 2014) and the work reported by Feng and Sass (2013) that extensive preparation predicts retention and efficacy.

**Preparation Program Features**

The fourth research question examined program features influencing special education teachers’ career intentions. Results suggested that special education teachers who reported that they are likely to remain also reported significantly higher ratings in the areas of program features, preparedness, and administrator support. Past research has suggested that differences in program quality might help explain special educators’ historically low retention rate, and this study adds to this literature by suggesting program quality features might help explain improved retention (Quigney, 2009; Rosenberg & Sindelar, 2005).

Special education teachers that reported they are likely to remain in the district rated program location, length, coursework, cohort membership, placement as a para-educator, mentor assignment, and administrator support as highly beneficial. This group also reported stronger feelings of preparedness to adapt instructional materials, use a variety of methods, and assess students. Program length and location were previously
addressed in the recruitment section of this discussion. It is important to understand how this partnership program provided other meaningful preparation experiences that were perceived with high quality (Rosenberg et al., 2009).

Special education teachers reported that coursework was one of the most helpful program features that prepared them for the field. Over 90% of special education teachers reported they felt prepared to plan lessons, use a variety of instructional methods and assess their students. Special education teachers achieved a Master of Science in Education with a concentration in mild to moderate disabilities with a concentration in elementary or secondary grade levels. The two-year, part-time coursework schedule and full-time internships were designed to accommodate their professional needs. As paraeducators, they completed 39 credits in a scripted sequence that included courses such as Applied Behavioral Programming, Instructional Planning and Management, and Educational Assessment. Morewood and Condo (2012) found that when coursework aligned to field experiences, special educators benefited. Conducting functional behavior assessments, formal academic assessments, and practicing behavior management strategies benefited special educators in this study and previous partnership programs (Esposito & Lal, 2005). Graduate degree-oriented coursework and at least ten weeks of field placement with supervised teaching practice predicted retention for three years (Boe, 2014; Boe et al., 2007).

Coursework occurred simultaneously with field placement as a para-educator during the partnership program. This partnership program enhanced the para-educator experience by using a cohort model; in some cases, as many as 15 peers completed their coursework and field placements together. Special education teachers reported that
collaboration with their cohort benefited their retention, and one interviewee stated that completing the program with 14 others helped her feel committed to the field. Instead of preparing candidates as para-educators, most alternative programs placed candidates as lead teachers while they completed coursework (Rosenberg et al., 2007; Henderson et al., 2005). In previous partnership programs, candidates completed undergraduate coursework through distance education, received support from regionally available mentor teachers, and achieved a 75% graduation rate (Glomb et al., 2009; Keefe et al., 2000; Larwood, 2005; Martin & Wienke, 1998).

Mentor teachers involved in this partnership program provided three favorable supports to their para-educators during their preparation. Special education teachers who intended to remain in the field also rated mentors availability, disposition, and professional feedback as highly beneficial. Mentors treated were available whenever they were needed, and they treated para-educators as professionals. Most importantly, mentor teachers observed para-educators’ teaching practices and provided helpful feedback. To a lesser extent, this group of special education teachers also reported that mentors helped plan lessons, manage behavior, taught the same subjects, encouraged reflective practice, and recognized participants’ accomplishments. Mentors usually did not help write IEPs or participate on formal evaluation teams. These specific mentor actions add to the literature base supporting mentoring as a supportive practice for new teachers.

Previous research suggested that mentors should provide emotional and professional support (Billingsley, 2004a; Billingsley et al., 2009; Dai et al., 2007; Ingersoll & Strong, 2011). Mentor behaviors in this study aligned to suggestions made
by Billingsley (2004a); mentors should help with daily issues, observe assist with teaching strategies, share insights and help with the mechanics of the job. The partnership program’s mentor match also complimented Ingersoll’s and Strong’s (2011) findings, that having a mentor who taught the same subject improved retention more than formal induction programs did. While mentors offered support and feedback, participants also relied on administrators’ support.

Results from this study suggest that administrators with a clear mission and vision who offered emotional support encouraged participants’ positive career intentions. Administrators tended to support participants actions and ideas, provide them with assurance and trust, and help them feel important. Special education teachers perceived most administrator support as indirect, such as exhibiting appreciation and instilling confidence. Cancio and colleagues (2013) also found that feeling appreciated predicted retention. Direct support, such as assisting with behavior was rated less frequent and less effective by study participants. However, Albrecht and colleagues (2009) found that daily direct support by administrators predicted positive career intentions for special educators teaching students with behavior challenges. Instead of administrator support, special education teachers in this investigation cited access to resources, professional development, and help from other specialists as effective direct supports.

Taken together, results from this study and previous research suggest that high-quality partnership preparation programs for special educators should include five main features. These include (a) graduate degree-oriented coursework, (b) a cohort model in which groups of students complete the program together, (c) long-term para-educator field placement, (d) district and university selected mentor teachers who provide frequent
coaching, and (e) supportive but indirect feedback from school-based administrators. These features may lead special educators to feel prepared to teach efficiently and to be committed to the field for the duration of their careers.

**Limitations**

Its lack of generalizability limits this study. Only participants identified with district-based emails were recruited to complete the survey, which may have biased results. Graduates who were not available to recruit may have continued teaching in other districts for reasons unrelated to their preparation program, or may have reported negative program perspectives that would have altered this study’s findings. Age and years retained by veteran respondents suggest that veteran program participants may have remained in the field for as long as they were able, and were no longer available due to retirement or life circumstances unrelated to their preparation. Also, veteran participants’ memory of their preparation program lacked reliability and may have biased their perspectives.

The survey instrument prompted Likert-type responses, which forced choices on participants who may have included different descriptors. Likewise, responses may reflect impulsive or socially desirable ratings, rather than reflective and accurate reports. Missing data accounted for 11 incomplete surveys, for which data were replaced with inferred information rather than participants’ reports. Participants may have responded differently than the value assigned suggested.

Additionally, multiple statistical procedures were used to answer the research questions, which may have introduced the potential for Type I error. Square root transformations and standardized composite scores were computed for inferential
statistics, to address non-normally distributed variables. Sufficient power would have required a larger sample size and representation by more than one partnership program.

**Implications for Special Education Teacher Preparation Programs**

Results from this study suggest promising recruitment practices that may alleviate special education teacher shortages. Recruitment strategies that attract local talent committed to their communities are essential. Selection criteria that require applicants to meet a high standard maintains program quality, reduces attrition, and attracts motivated candidates. Offering salary and benefits increase the number of candidates who can afford to apply and offering tuition support adds to that figure.

Partnership programs that allow candidates to experience peer-to-peer collaboration as members of cohorts have shown to have beneficial implications for success and retention. University and district personnel, including faculty, mentor teachers, university supervisors, and school administrators modeling effective communication and collaboration have an impact on success and retention. Authentic clinical application of evidence-based practices through degree-oriented coursework, including credit-earning internships and graduate projects, allow participants to practice with guidance before teaching on their own.

Legal requirements and district procedures for maintaining compliance with federal law add a layer of stress to special educators’ work arrangements. One of the most important findings of this study was the suggestion that well-prepared special educators were resilient to work arrangements that frequently related to attrition by graduates of other types of programs (Billingsley et al., 2014). Participants reported high caseload responsibilities, challenging students, feeling undervalued, infrequent
opportunities to co-plan, and overwhelming paperwork demands. On the other hand, they reported feeling “very well prepared” to fulfill these responsibilities, and only 2.9% stated they planned to leave the field. These findings suggest that extensive preparation, including rigorous coursework and field placements, may help prepare special educators for legal and district demands while mitigating challenging work arrangements.

The characteristics of this special education teacher-immersion program model included that it was advertised widely, selected competitive candidates who met high-level academic criteria, required completion of master’s level coursework and two internships. The participants received modest salaries for paid positions as paraeducators, and when they completed the program, they were eligible to receive a Master’s degree and state certification. The district and university held outstanding reputations, which added a dimension of prestige to program participation. Without funding support, similar programs may be difficult to establish. The results of this study suggest an immediate need for considering increasing the number of special education teacher immersion programs to address the urgent demand for well-prepared special education teachers.

**Implications for Research on Teacher Preparation**

A chronic shortage of well-prepared special educators persists in 48 states (Holdheide & Demonte, 2016) while alternative certification programs of questionable quality proliferate to help fill vacancies. Meanwhile, most students with disabilities, especially in high-needs schools, demonstrate less than a basic understanding of grade level material (NCES, 2015). The legislative response supports creative solutions, but only funds effective programs (ESEA, 2015; RTTT, 2009). Therefore, special education teacher preparation researchers must produce high-quality investigations that suggest
evidence of effective programs. This investigation offered a framework for program evaluation and demonstrated that partnership programs recruited, prepared, and retained diverse special educators at high rates.

More research is needed on effective partnership program features that recruit diverse special educators to fill positions in high-needs districts (Robertson & Singleton, 2010). While Boe (2014) suggested that para-educators offer an easily recruited supply, programs must also provide structures that prepare and retain them to meet stressful job demands (Washburn-Moses & Rosenberg, 2008). Although the Higher Education Opportunity Act (2008) requires program evaluation, measures were not suggested, and few reliable instruments are currently available. Special education teacher preparation programs might adopt this study’s instruments and procedures to investigate their graduates’ retention rates and program perspectives. High-quality program evaluations should replace current market-driven responses to special education teacher demand (Sindelar et al., 2012) to prepare for the next era of increased demand for 12,000 special education teachers projected by Dai and colleagues (2007).

Future research efforts, especially those aimed at meeting policy demands could extend this study’s findings by incorporating administrators’ perspectives of special educators’ effectiveness or observational data from evaluation reports. Additionally, students’ outcome data could be analyzed to determine indirect preparation program influences on students’ with disabilities achievement. An ambitious, yet important research effort to consider may include scaling this model of partnership program to investigate its efficacy within a randomized control trial across settings. Partnership
program features that recruits and retains well-prepared special educators will not be identified without experimental research.

In conclusion, IHE-LEA partnerships recruit, prepare, and retain non-traditional individuals by customizing programs and individualizing supports. Recruitment strategies highlight program rigor balanced by financial incentives. Immersive field experiences and graduate degree coursework lead to preparedness for challenging work arrangements. Mentors and administrators instill trust in special education teachers through professional, indirect support. The Special Education Teacher-Immersion Training Program models 20 years of high-quality programming worth replicating.
References


http://uknowledge.uky.edu/gradschool_diss/159


Table 1

*Comparison of Recruited and Non Recruited Program Graduates*

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Recruited</th>
<th></th>
<th>Non Recruited</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Total</td>
<td>119</td>
<td>69.2</td>
<td>53</td>
<td>30.8</td>
</tr>
<tr>
<td>Race</td>
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<td>Caucasian</td>
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<td>5</td>
<td>9.4</td>
</tr>
<tr>
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<td>7.6</td>
<td>2</td>
<td>3.8</td>
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<tr>
<td>Hispanic</td>
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<td>6.7</td>
<td>2</td>
<td>3.8</td>
</tr>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
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<td>0.8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Missing</td>
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<td>14.3</td>
<td>22</td>
<td>41.5</td>
</tr>
<tr>
<td>Gender</td>
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<td></td>
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<tr>
<td>Male</td>
<td>32</td>
<td>26.9</td>
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<td>3.8</td>
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<tr>
<td>Female</td>
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<td>73.1</td>
<td>50</td>
<td>94.3</td>
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<tr>
<td>Missing</td>
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<td>0</td>
<td>1</td>
<td>1.9</td>
</tr>
<tr>
<td>Career Phase</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Novice</td>
<td>17</td>
<td>14.2</td>
<td>1</td>
<td>1.8</td>
</tr>
<tr>
<td>Veteran</td>
<td>102</td>
<td>85.7</td>
<td>52</td>
<td>98.1</td>
</tr>
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</table>

*Note. N = 172. Only graduates identified with district-based emails (N = 119) were recruited to participate in the survey and interview.*
Table 2

*Survey Participants’ Characteristics*

<table>
<thead>
<tr>
<th>Characteristic</th>
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<th></th>
<th>Veteran</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
<td>20.6</td>
<td>54</td>
<td>79.4</td>
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<tr>
<td>Female</td>
<td>9</td>
<td>64.3</td>
<td>40</td>
<td>74.1</td>
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<tr>
<td>Male</td>
<td>5</td>
<td>35.7</td>
<td>13</td>
<td>24.1</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25 – 40</td>
<td>8</td>
<td>57.1</td>
<td>14</td>
<td>25.9</td>
</tr>
<tr>
<td>41-55</td>
<td>5</td>
<td>35.6</td>
<td>20</td>
<td>37.1</td>
</tr>
<tr>
<td>55+</td>
<td>1</td>
<td>7.1</td>
<td>20</td>
<td>37.0</td>
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<tr>
<td>Non-White</td>
<td>4</td>
<td>28.6</td>
<td>8</td>
<td>14.8</td>
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<tr>
<td>Parenting while in program</td>
<td>5</td>
<td>35.7</td>
<td>34</td>
<td>63</td>
</tr>
<tr>
<td>Previous classroom experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>1</td>
<td>7.1</td>
<td>8</td>
<td>14.8</td>
</tr>
<tr>
<td>Volunteer</td>
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<td>21.4</td>
<td>10</td>
<td>18.5</td>
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<tr>
<td>Substitute teacher</td>
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<td>14.3</td>
<td>9</td>
<td>16.7</td>
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<tr>
<td>Para-educator</td>
<td>14</td>
<td>100</td>
<td>48</td>
<td>88.9</td>
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<tr>
<td>Classroom teacher</td>
<td>3</td>
<td>21.4</td>
<td>5</td>
<td>9.3</td>
</tr>
<tr>
<td>Previous Salary</td>
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<td></td>
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<tr>
<td>Lower</td>
<td>9</td>
<td>64.3</td>
<td>45</td>
<td>83.3</td>
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<td>2</td>
<td>14.3</td>
<td>4</td>
<td>7.4</td>
</tr>
<tr>
<td>Higher</td>
<td>3</td>
<td>21.4</td>
<td>5</td>
<td>9.3</td>
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<tr>
<td>Location very beneficial to recruitment</td>
<td>1</td>
<td>7.1</td>
<td>33</td>
<td>61.1</td>
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<tr>
<td>Promotion since program completion</td>
<td>1</td>
<td>7.1</td>
<td>18</td>
<td>33.3</td>
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</table>

*Note. N = 68. Missing data not included.*
Table 3

Retention and Recruitment Variables based on Personal Characteristics Groups

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>M</th>
<th>SD</th>
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</thead>
<tbody>
<tr>
<td><strong>Years since graduating</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional</td>
<td>22</td>
<td>7.09</td>
<td>4.76</td>
</tr>
<tr>
<td>Mid</td>
<td>18</td>
<td>8.94</td>
<td>5.55</td>
</tr>
<tr>
<td>Non-traditional</td>
<td>28</td>
<td>12.11</td>
<td>4.49</td>
</tr>
<tr>
<td>Total</td>
<td>68</td>
<td>9.65</td>
<td>5.27</td>
</tr>
<tr>
<td><strong>Program Features</strong></td>
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<tr>
<td>Traditional</td>
<td>22</td>
<td>37.41</td>
<td>5.48</td>
</tr>
<tr>
<td>Mid</td>
<td>18</td>
<td>38.17</td>
<td>4.63</td>
</tr>
<tr>
<td>Non-traditional</td>
<td>28</td>
<td>40.86</td>
<td>6.81</td>
</tr>
<tr>
<td>Total</td>
<td>68</td>
<td>39.03</td>
<td>6.00</td>
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</table>

*Note.* Tukey post hoc harmonic mean sample size = 21.94. **p < .01. 
Table 4

Results of One-Way ANOVA Comparing Years Retained by Personal Characteristics Group Characteristics

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>322.09</td>
<td>161.04</td>
<td>6.78</td>
<td>.002</td>
</tr>
<tr>
<td>Within Groups</td>
<td>65</td>
<td>1545.44</td>
<td>23.77</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>67</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. The non-traditional group remained in the district for a mean of 12.1 years (SD = 4.49), compared to the traditional group mean 7.1 years (SD = 4.8).
Table 5

Reasons for Leaving the District

Novice participants

- One graduate went to (another county) because there was a hiring freeze in 2010 and we were not guaranteed jobs. I had to take two .5 jobs on the opposite sides of (this district) to get employment that first year out of school.
- One of the members in my Cohort was unable to get a job in MCPS and decided to go back to school for an administration degree.
- Teaching in another county. Homeschooling her own children.
- Working as a Child Care Director for a private company & as a para-educator in MCPS
- Special education substitute para-educator

Veteran participants

- A para-professional (3 responses)
- Stay at home mom. (2 responses)
- Teaching in other counties. (13 responses)
- Did not get hired (by this district). I heard that she was teaching in (another county).
- Frederick County Reading Specialist
- I know of people who have moved and are no longer in (the district) but still are in the special education field, mostly due to other variables of what their family decisions have been.
- Taught in (another district) and eventually did second masters in ESOL.
- Teaching in (another district) due to a move or she would have remained in (this district) as a Special Ed Teacher.
- Two changed careers and one is a substitute teacher.
- Moved from GA for (this) program - moved back to GA immediately following completion of the program to become a special educator in GA.
- Attending college.
- Managing a small, independent corporation.
- Volunteered a lot in schools as a parent.

Note. Survey participants’ open-ended responses to “If you know, please describe what other program graduates are doing related to special education, if they left the district.”
Table 6

*Personal Characteristics Predictive of Career Intentions*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1 $B$</th>
<th>Model 2 $B$</th>
<th>95% CI</th>
<th>$sr^2$</th>
</tr>
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<tbody>
<tr>
<td>Constant</td>
<td>-1.480</td>
<td>-1.192</td>
<td>[-0.132, -2.251]</td>
<td>.05</td>
</tr>
<tr>
<td>Career phase</td>
<td>0.825**</td>
<td>0.594*</td>
<td>[1.162, 0.026]</td>
<td></td>
</tr>
<tr>
<td>Promoted</td>
<td>0.669**</td>
<td></td>
<td>[1.178, 0.161]</td>
<td>.08</td>
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<tr>
<td>Prior teaching experience</td>
<td>1.122</td>
<td></td>
<td>[0.322, -0.565]</td>
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<tr>
<td>Parenting experience</td>
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<td></td>
<td>[0.639, -0.261]</td>
<td></td>
</tr>
<tr>
<td>Prior special education experience</td>
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<td></td>
<td>[0.240, -0.663]</td>
<td></td>
</tr>
</tbody>
</table>

$R^2$                               | 0.240       |

$F$                                | 3.919       |

$\Delta R^2$                       | 0.127       |

$\Delta F$                         | 2.595*      |

*Note. N = 68. CI = confidence interval. *$p < .05. **p < .01.*
Table 7

*Intention (Dependent Variable Composite Score) by Career Phase*

<table>
<thead>
<tr>
<th>Survey items</th>
<th>Novice</th>
<th></th>
<th>Veteran</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>14</td>
<td>20.6%</td>
<td>54</td>
<td>79.4%</td>
</tr>
<tr>
<td><strong>Commitment (frequency of agree and strongly agree)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am proud to tell others I am a part of this profession.</td>
<td>13</td>
<td>92.9%</td>
<td>19</td>
<td>96.3%</td>
</tr>
<tr>
<td>This profession really inspires the very best in me in the way of job performance.</td>
<td>9</td>
<td>64.3%</td>
<td>49</td>
<td>90.7%</td>
</tr>
<tr>
<td>I can get through to the most difficult students.</td>
<td>11</td>
<td>78.6%</td>
<td>48</td>
<td>88.9%</td>
</tr>
<tr>
<td>I have strong skills in behavior management.</td>
<td>10</td>
<td>71.4%</td>
<td>47</td>
<td>87%</td>
</tr>
<tr>
<td>I am a very effective teacher overall.</td>
<td>11</td>
<td>78.6%</td>
<td>51</td>
<td>94.4%</td>
</tr>
<tr>
<td>I have strong collaborative relationships with my colleagues.</td>
<td>10</td>
<td>71.4%</td>
<td>48</td>
<td>88.9%</td>
</tr>
<tr>
<td>I am not likely to leave the field.</td>
<td>4</td>
<td>28.6%</td>
<td>35</td>
<td>64.8%</td>
</tr>
<tr>
<td><strong>Intent (selection frequency).</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I was promoted and train special educators currently.</td>
<td>1</td>
<td>7.1%</td>
<td>6</td>
<td>11.1%</td>
</tr>
<tr>
<td>I will remain in the field as long as I am able.</td>
<td>5</td>
<td>35.7%</td>
<td>26</td>
<td>48.1%</td>
</tr>
<tr>
<td>I will remain in the field until I retire.</td>
<td>1</td>
<td>7.1%</td>
<td>10</td>
<td>18.5%</td>
</tr>
<tr>
<td>I teach students with disabilities as a general educator now.</td>
<td>0</td>
<td>0%</td>
<td>4</td>
<td>7.4%</td>
</tr>
<tr>
<td>I will remain in the field until a life event or promotion occurs.</td>
<td>1</td>
<td>7.1%</td>
<td>4</td>
<td>7.4%</td>
</tr>
<tr>
<td>I am undecided regarding how long I will remain in the field.</td>
<td>5</td>
<td>35.7%</td>
<td>3</td>
<td>5.6%</td>
</tr>
<tr>
<td>I definitely plan to leave the field as soon as I can.</td>
<td>1</td>
<td>7.1%</td>
<td>1</td>
<td>1.9%</td>
</tr>
<tr>
<td><strong>Years of experience since program completion</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 – 5 years</td>
<td>14</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 – 10 years</td>
<td></td>
<td></td>
<td>21</td>
<td>33.3%</td>
</tr>
<tr>
<td>11 – 15 years</td>
<td></td>
<td></td>
<td>20</td>
<td>27.2%</td>
</tr>
<tr>
<td>15 – 20 years</td>
<td></td>
<td></td>
<td>7</td>
<td>14.6%</td>
</tr>
</tbody>
</table>

*Note. N = 68.*
Table 8

*Selected Open-ended Responses about Commitment*

**Novice SETs**

- I am now a general educator. I loved being a special educator, but the paperwork and huge caseloads caused me to quit. The paperwork creates terrible inequities in teaching and prevents special educators from becoming true co-teachers with general educators.
- I enjoy teaching and always feel like I am making a difference in the life of my students. I do feel underappreciated by administration and parents, making it difficult to stay motivated. (3 similar responses)
- I enjoy working with the population of students I have, but the general perception of special educators in the county is that we are incompetent and unable to instruct as well as our general educator counterparts. Additionally, the amount of paperwork required on top of our regular teaching duties of planning, creating materials, grading, and supporting students are staggering. (2 similar responses)
- I feel excited. I love my students, and I strongly believe I have the skills to help them to be successful. (3 similar responses)
- It is a difficult job and very wearing, as you need to balance a caseload and co-teach with students who are reluctant to learn. I do now understand why burnout rate is very high in this field.

**Veteran SETs**

- I am simply the best at this. It is a gift and skill, and I have never met anyone who loves the job as much. I turn down any position that means less kid time and more meeting time. The paperwork requirements kill the joy of the job. Some days I feel like a lawyer—just not paid as well. The part with the kids, though, that is prime and more important than any administrative job could ever be.
- I am very pleased with of the profession/vocation I have chosen. I feel very satisfied with how the SET-IT program prepared me for the job. Being a special educator is one of the most rewarding things I have done in my life. Sometimes it is difficult, even painful, but those are the times when I feel that I am the greatest advocate for my students. I feel that because of my position as a special educator I have a skill set and level of engagement with my students and their families that facilitate providing the supports and services they need to succeed in school.
- I enjoy facilitating student learning and being able to watch the student develop their educational base. (5 similar responses)
- Being a special educator allows me to use my psychology background to enhance my effectiveness in working with students of all stripes.
- Challenged every day, overwhelmed by paperwork I teach high school, and it is rewarding to see my caseload students graduate. (“rewarding” for four additional participants)
<table>
<thead>
<tr>
<th>Selected Open-ended Responses about Commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>• I hate the paperwork, to the point I want to leave special education. We are looked down at by other educators, as were seen without out a specialty even if we are certified/HQ.</td>
</tr>
<tr>
<td>• It is a wonderful career as far as students are concerned. The field, however, does not have strong advocates for teachers, which causes enormous stress.</td>
</tr>
<tr>
<td>• It is challenging, much paperwork, and quite often not viewed as an equal to our general education teachers. On the other hand, it is rewarding when we see that our students make gains or graduate. Being able to help the students and their families bring me joy and makes me feel it is worth it. (2 similar responses)</td>
</tr>
<tr>
<td>• It is very challenging. Enjoy working with the kids, but working with adults is altogether different matter. There is no support!</td>
</tr>
<tr>
<td>• It is very hard work. Often I feel like I put more into it time wise than many general educators. Also sometimes, I do much menial work (changing diapers, wiping noses, etc.) However, I do like it and think it is a very important job.</td>
</tr>
</tbody>
</table>

*Note.* Survey participants’ open-ended responses to prompt, “Please describe how you feel about being a special educator.”
Table 9

*Promotions Reported*

<table>
<thead>
<tr>
<th>Novice participants’ responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Team leader, Accelerated, and Enriched Instructional Support Teacher</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Veteran participants’ responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Staff Development Teacher</td>
</tr>
<tr>
<td>• Resource Teacher for Special Education (7 responses)</td>
</tr>
<tr>
<td>• ESOL Teacher, Instructional Specialist, College Adjunct Professor, and most recently</td>
</tr>
<tr>
<td>Pupil Personnel Worker</td>
</tr>
<tr>
<td>• Head of special education department at high school; University Supervisor</td>
</tr>
<tr>
<td>• I worked as a Special Education Teacher for 11 years. I earned additional certification</td>
</tr>
<tr>
<td>for Art Education. I am currently an Art Education Teacher (four years) but expect to</td>
</tr>
<tr>
<td>go back into Special Education for the next school year.</td>
</tr>
<tr>
<td>• Assistant Principal</td>
</tr>
<tr>
<td>• Pupil Personnel Worker</td>
</tr>
<tr>
<td>• Special Education Department School-Based Chairperson; Special Education Itinerant</td>
</tr>
<tr>
<td>Resource teacher, Special Education Instructional Specialist Assistant School Administrator</td>
</tr>
<tr>
<td>• Intervention Resource Teacher Instructional specialist Special Education Supervisor</td>
</tr>
<tr>
<td>• Secondary Program Specialist</td>
</tr>
<tr>
<td>• Team Leader (2 responses)</td>
</tr>
</tbody>
</table>

*Note: Survey participants’ responses to prompt, “What other titles have you held since you completed the preparation program?”*
Table 10

*Correlations for Key Study Variables*

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>(N = 68; M = 0, SE = .12)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Career phase</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program features</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mentoring</td>
<td>.34**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Induction</td>
<td>.03</td>
<td>.30*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrative support</td>
<td>.01</td>
<td>.25*</td>
<td>.23</td>
<td>.34**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feeling prepared</td>
<td>-.09</td>
<td>-.24*</td>
<td>.00</td>
<td>-.21</td>
<td>-.35**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work arrangements</td>
<td>-.10</td>
<td>-.16</td>
<td>.10</td>
<td>-.29*</td>
<td>-.11</td>
<td>-.06</td>
<td></td>
</tr>
<tr>
<td>Intention</td>
<td>.34**</td>
<td>.32**</td>
<td>.28*</td>
<td>.04</td>
<td>.27*</td>
<td>.02</td>
<td>-.27*</td>
</tr>
</tbody>
</table>

*Note.* Career phase (coded 1 = novice, 2 = veteran). Column headings = (1) Program features; (2) Mentoring; (3) Induction; (4) Administrative support; (5) Feeling prepared; (6) Work arrangements; (7) Intention. *p < .05; **p < .01.
Table 11

*Domain Composite Scores by Career Phase*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Novice</th>
<th>Veteran</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>n = 14</em></td>
<td><em>n = 54</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>M</em></td>
<td><em>SD</em></td>
<td><em>M</em></td>
</tr>
<tr>
<td><strong>Independent Variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program Features Domain</td>
<td>106.47</td>
<td>22.43</td>
<td>114.26</td>
</tr>
<tr>
<td>Program Features</td>
<td>35.60</td>
<td>6.31</td>
<td>40.0</td>
</tr>
<tr>
<td>Feeling Prepared</td>
<td>70.87</td>
<td>19.81</td>
<td>74.26</td>
</tr>
<tr>
<td>Mentoring/Induction Activities Domain</td>
<td>108.47</td>
<td>15.84</td>
<td>110.09</td>
</tr>
<tr>
<td>Mentoring</td>
<td>55.86</td>
<td>12.18</td>
<td>56.72</td>
</tr>
<tr>
<td>Induction</td>
<td>52.64</td>
<td>11.06</td>
<td>53.33</td>
</tr>
<tr>
<td>District Procedures Domain</td>
<td>64.48</td>
<td>8.33</td>
<td>62.21</td>
</tr>
<tr>
<td>Administrator Support</td>
<td>31.29</td>
<td>7.92</td>
<td>31.43</td>
</tr>
<tr>
<td>Work arrangements</td>
<td>32.68</td>
<td>5.72</td>
<td>30.86</td>
</tr>
<tr>
<td><strong>Dependent Variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMMIT</td>
<td>26.87</td>
<td>4.10</td>
<td>30.02</td>
</tr>
<tr>
<td>INTENT</td>
<td>4.00</td>
<td>2.07</td>
<td>5.13</td>
</tr>
<tr>
<td>INTENTION</td>
<td>108.27</td>
<td>57.45</td>
<td>155.28</td>
</tr>
</tbody>
</table>
Table 12

Predictors of Special Educators’ Self-Reported Career Intentions

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>CI, 95%</th>
<th>( \eta^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-1.850</td>
<td>-1.517</td>
<td>-2.628</td>
<td>[-0.32, -4.94]</td>
<td></td>
</tr>
<tr>
<td>Career phase</td>
<td>0.979*</td>
<td>0.906*</td>
<td>0.830*</td>
<td>[1.47, 0.18]</td>
<td>.08</td>
</tr>
<tr>
<td>Domain program features</td>
<td>-0.056</td>
<td>-0.054</td>
<td></td>
<td>[0.17, -0.028]</td>
<td></td>
</tr>
<tr>
<td>Program features</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feeling prepared</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domain mentoring &amp; induction</td>
<td>0.184*</td>
<td>0.267*</td>
<td></td>
<td>[0.52, 0.02]</td>
<td>.06</td>
</tr>
<tr>
<td>Mentoring excluded</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Induction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domain district</td>
<td>-0.003</td>
<td>0.017</td>
<td></td>
<td>[0.05, -0.01]</td>
<td></td>
</tr>
<tr>
<td>Work arrangements</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrative support excluded</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\( R^2 \) | 0.353
\( F \) | 3.410
\( \Delta R^2 \) | 0.139
\( \Delta F \) | 2.680**

*Note. N = 68. CI = confidence interval. *p < .05; **p < .01.*
Table 13

Results of One-Way ANOVA Comparing Career Intentions by Feeling Prepared

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>8.843</td>
<td>4.421</td>
<td>4.941</td>
<td>.01</td>
</tr>
<tr>
<td>Within Groups</td>
<td>65</td>
<td>58.157</td>
<td>.895</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>67</td>
<td>67</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. N = 68. Participants who reported they intend to remain as long as they are able or until retirement reported significantly higher ratings of program features’ effectiveness for helping them increase teaching skills and confidence and improve teaching skills and student learning.
Figure 1. Model of total demand, annual demand, turnover, shortage, and supply relationships. Data were summarized and adapted from *The Handbook of Research in Special Education Teacher Preparation* (p. 67 – 93), by E. E. Boe, 2014, New York: Routledge. Copyright [2014] by Taylor & Francis.
Figure 2. Participants’ responses to, “Please rate the following program features’ benefit for recruiting and retaining you in the SET-IT program through graduation.”
Figure 3. Participants’ responses to, “Please rank the following program features’ benefit to preparing you to become a special educator.” Novice (N = 14); Veterans (N = 54).
Figure 4. Participants’ responses to, “Please rate how well the program prepared you to…”
**Figure 5.** Participants’ responses to, “Based on your field experience while in the SET-IT program, rate the extent to which you agree with the statements, “My mentor…””
Figure 6. Participants’ responses to, “Rate the frequency of in-school supports (after graduating from SET-IT).” Infrequent = monthly, as needed, never; Frequent = weekly, daily.
Figure 7. Participants’ responses to, “Rate the overall effectiveness of in-school supports (after graduating from SET-IT).”
Figure 8. Participants’ responses to, “How supportive is your administrator? Rate administrator’s support by stating your agreement with items beginning, ‘My administrator….’ If you have more than one administrator, consider the administrator with whom you work most closely.”
Appendix A

Survey Instrument

JHU - MCPS SET-IT Partnership Graduate Survey - L

Voluntary Consent

1. Thank you for participating in this research study! Your participation is completely voluntary. Information obtained from this survey will be used for understanding and improving special education teacher preparation programs and partnerships with school districts. All information you provide will be kept anonymous.

By clicking "I agree" below, and completing this survey, you are consenting to be in this research study. Your participation is voluntary and you can stop at any time.

☐ I agree to participate in this research study.
☐ I do not agree to participate in this research study.

* 2. Did you complete the JHU - Montgomery County Public Schools Partnership Program, Special Education Teacher Immersion Training (SET-IT)?

☐ Yes
☐ No
☐ I don't know.

JHU - MCPS SET-IT Partnership Graduate Survey - L

Participants' Demographics

This section asks you to describe your demographic background.

3. Are you male or female?

☐ Male
☐ Female
8. How long do you plan to remain in the special education field?

- I retired from working as a special educator.
- As long as I am able
- Until I am eligible for retirement benefits from this job
- Until I am eligible for retirement benefits from a previous job
- Until I am eligible for Social Security benefits
- Until a specific life event occurs (e.g., parenthood, marriage)
- Until a more desirable job opportunity comes along
- Definitely plan to leave as soon as I can
- I no longer work in the special education field
- Undecided at this time
- I never worked as a special education teacher

9. Have you been promoted from the status of Special Education Teacher since you graduated from the SET-IT program (e.g., Department Chair, Assistant Principal, etc.)

- No
- I applied but was declined.
- I was offered a position but I declined it.
- Yes

10. If you have been promoted from the status of Special Education Teacher, please provide additional titles you have held since graduating from the SET-IT program.
11. Rate your agreement with the following statements regarding your feelings toward being a special educator using a scale from 1 (strongly disagree) to 5 (strongly agree) on the following items:

<table>
<thead>
<tr>
<th>Statement</th>
<th>(1) Strongly Disagree</th>
<th>(2) Disagree</th>
<th>(3) Neutral</th>
<th>(4) Agree</th>
<th>(5) Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am proud to tell others that I am a part of this profession</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This profession really inspires the very best in me in the way of job performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can get through to the most difficult students</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have strong skills in behavior management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am a very effective teacher overall</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have strong collaborative relationships with my colleagues</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am likely to leave the field for a slight increase in pay, status, and/or job freedom</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12. Please describe how you feel about being a special educator.

13. Do you know anyone who completed the SET-IT program and did not teach special education for the Montgomery County school district?

   - No
   - Yes
14. If you know, please describe what the person (people) you know who left the district is currently doing related to special education.

JHU - MCPS SET-IT Partnership Graduate Survey - L

Personal Characteristics

This section asks you about your personal information before, during, and after participating in the SET-IT program to help us learn about recruitment.

15. What was your MAIN activity in the YEAR PRIOR to participating in the SET-IT program? (Considering all of the options below, please mark the box which best applies to how you spent the MOST time the year PRIOR to participating in the SET-IT program. Mark only one box.

- Teaching in Montgomery County Public Schools
- Teaching in a different public school system
- Teaching in a PRIVATE elementary or secondary school
- Assistant teaching or para-educator
- Substitute teacher
- Student at a college or university
- Teaching in a preschool
- Retired or Retiring Special Education Teacher
- Working in a position in the field of education, but not as a teacher
- Working in an occupation outside the field of education
- On leave (e.g. maternity or paternity leave, disability leave, sabbatical)
- Caring for family members, but not on leave (e.g. homemaking, child-rearing)
- Military service
- Unemployed and seeking work
- Retired from another job

Other (please specify)
16. How many years of classroom experience did you complete prior to graduating from the SET-IT program?

<table>
<thead>
<tr>
<th></th>
<th>None</th>
<th>1-5 years</th>
<th>more than 5 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>As a para-educator</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>As a substitute teacher</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>As a volunteer</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>As a classroom teacher</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

17. Were you the primary caregiver of any children (ages birth - 18) living with you before, during, or after the SET-IT program?

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before SET-IT</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>During SET-IT</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>After SET-IT</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

18. How many full school years were you employed to work in a classroom setting PRIOR to beginning the SET-IT program? (Please enter a number from 0-20).

[3 years]

19. How would you describe your estimated salary after graduating from SET-IT compared to your earnings prior to entering the SET-IT program?

- ☐ Significantly lower
- ☐ Lower
- ☐ About the same
- ☐ More
- ☐ Significantly more

---

**JHU - MCPS SET-IT Partnership Graduate Survey - L**

**Partnership Preparation Program Features**

This section informs our understanding of your experience in the SET-IT program, which was provided in partnership between MCPS and JHU.
20. Please rate the following program features’ benefit for RECRUITING and RETAINING you in the SET-T program through graduation on a scale of 1 (not beneficial) to 5 (very beneficial).

<table>
<thead>
<tr>
<th></th>
<th>1 - Not Beneficial</th>
<th>2 - Somewhat Beneficial</th>
<th>3 - Neutral / NA</th>
<th>4 - Beneficial</th>
<th>5 - Very Beneficial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length of program</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coursework</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program cost</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuition benefit paid by district</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Placement as para-educator</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mentor teacher (Colleague Teacher) assignment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Certification test preparation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University supervisors’ support</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collaboration with program cohort</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

21. Please rank the following program features’ benefit to PREPARING you to become a special educator.

- Location
- Length of program
- Coursework
- Program cost
- Tuition benefit paid by district
- Placement as para-educator
- Mentor teacher (Colleague Teacher) assignment
- Certification test preparation
- University supervisors’ support
- Collaboration with program cohort
22. On a scale of 1 (not at all) to 5 (very well) rate how well you feel the program PREPARED you to:

<table>
<thead>
<tr>
<th>Task</th>
<th>(1) Not at all prepared</th>
<th>(2) Somewhat prepared</th>
<th>(3) Adequately prepared</th>
<th>(4) Well Prepared</th>
<th>(5) Very Well Prepared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teach your subject matter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select and adapt curriculum and instructional materials</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plan lessons effectively</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use a variety of instructional methods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assess students</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Handle a range of classroom management or discipline situations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use computers in instruction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

JHU - MCPS SET-IT Partnership Graduate Survey - L

In-School Support during the SET-IT Program

This section informs us about your field experience during the SET-IT program and support you received from your mentor or Colleague Teacher.
23. Based on your field experience while in the SET-IT program, rate the extent to which you agree with the following statements from 1 (strongly disagree) to 5 (strongly agree):

*Note: Mentor Teacher = Colleague Teacher

<table>
<thead>
<tr>
<th>Statement</th>
<th>(1) Strongly Disagree</th>
<th>(2) Disagree</th>
<th>(3) Neutral</th>
<th>(4) Agree</th>
<th>(5) Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>My mentor treated me as a professional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My mentor was usually available to help me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My mentor was not part of my formal evaluation team</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My mentor recognized my accomplishments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My mentor encouraged me to balance work and home life</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My mentor encouraged reflective practice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My mentor and I taught the same subject(s)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My mentor provided emotional support and encouragement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My mentor helped me write IEPs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My mentor observed my teaching and provided feedback</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My mentor and I discussed how to collaborate effectively with</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>general education teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My mentor provided guidelines for communicating with parents</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My mentor helped me with student behavior</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My mentor helped me with the general education curriculum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My mentor provided assistance with scheduling</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My mentor helped me plan lessons</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**JHU - MCPS SET-IT Partnership Graduate Survey - L**

In-School Support after graduating from the SET-IT Program

Considering the first FIVE years of your special education career after completing the SET-IT program, please answer the following questions.
24. For how long did you work as a special education teacher in Montgomery County Public School District after you graduated from the SET-IT Program?

- □ I never worked as a special education teacher.
- □ I never worked as a special education teacher for Montgomery County Public School District (MCPS).
- □ I was / have been a special educator for MCPS for 1-5 years.
- □ I was / have been a special educator for MCPS for more than 5 years.

---

25. How frequently did you experience the following supports?

<table>
<thead>
<tr>
<th>Support</th>
<th>Never</th>
<th>As Needed</th>
<th>Monthly</th>
<th>Weekly</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal mentoring (after SET-IT graduation)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regular meetings with other new teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Informal help from teachers in my building</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assistance from administrators in my building</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assistance from consultants or supervisors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In-service or staff development</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Informal help from other colleagues</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
26. Rate the overall effectiveness of in-school supports (after graduating from SET-IT) on a scale of 1 (not effective) to 5 (very effective):

<table>
<thead>
<tr>
<th></th>
<th>(1) Not at all effective</th>
<th>(2) Somewhat effective</th>
<th>(3) Neutral</th>
<th>(4) Effective</th>
<th>(5) Very Effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving your teaching skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increasing your confidence as a teacher</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increasing your effectiveness as a teacher</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improving your students’ learning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formal mentoring (after SET-IT graduation)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regular meetings with other new teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Informal help from teachers in my building</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assistance from administrators in my building</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assistance from consultants or supervisors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In-service or staff development</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Informal help from other colleagues</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**JHU - MCPS SET-IT Partnership Graduate Survey - L**

**District Procedures**

**This section informs us regarding your experiences with district policies and administrators.**

27. Which of the following describe the school-wide behavioral programs used in your current school, if any? (Check all that apply.)

- [ ] I do not know
- [ ] No school-wide behavior intervention program is in place.
- [ ] Positive behavior intervention and supports (PBIS)
- [ ] Point System (students earn points for rewards or privileges)
- [ ] Level System (students’ privileges increase based on levels)
28. How supportive is your school administrator?
Rate administrator support by stating your agreement with the following items on a scale of 1 (strongly disagree) to 5 (strongly agree).

*Note: If you have more than one administrator, consider the administrator with whom you work most closely.

<table>
<thead>
<tr>
<th>Item</th>
<th>(1) Strongly Disagree</th>
<th>(2) Disagree</th>
<th>(3) Neutral</th>
<th>(4) Agree</th>
<th>(5) Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supports my actions and ideas</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assures me that he or she has confidence in my integrity,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>motivation, and ability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shows appreciation of my work</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Notices my efforts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gives me a sense of importance that I make a difference</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knows and communicates what kind of school s/he wants</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Backs me up when I need it</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assists me with behavior</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understands what I do</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**JHU - MCPS SET-IT Partnership Graduate Survey - L**

**Special Educator Responsibilities**

This section informs us regarding the extent of your responsibilities as a special educator.

29. Of all the students you teach, how many have an Individualized Education Program (IEP) because they have disabilities or are special education students? (Please enter a number from 0-99)

   

30. How many students with IEPs are you responsible for providing formal IEP documentation (e.g., IEP progress reports)? (Please enter a number from 0-100).

   

143
31. For the numbered students above, which IEP related responsibilities are you assigned at least once per school year? (Check all that apply)

- None
- Maintaining an organized case file
- Writing progress reports on IEP goals
- Updating present levels of academic and functional performance on IEPs
- Revising annual IEP goals and objectives
- Revising accommodations and/or supplementary aids
- Drafting additional IEP information (eligibility, services, LRE)
- Scheduling IEP meetings with parents and other team members
- Conducting formal educational assessments and writing reports
- Facilitating IEP meetings
- Revising, closing, and distributing IEP related documents

32. Which statement best describes the way your classes are organized?

- Departmentalized Instruction (You instruct several classes of different students most of the day in one or more subjects).
- Elementary Subject Specialist (You are an elementary school teacher who teaches only one subject to different classes of students).
- Self-Contained Class (You instruct the same group of students all or most of the day in multiple subjects).
- Team Teaching (You are one of two or more teachers, in the same class, at the same time, and are jointly responsible for teaching the same group of students all or most of the day).
- “Pull-Out Class” or “Push-In Instruction” (You instruct a small number of selected students released from or in their regular classes in specific skills or to address specific needs).
- Other (please specify)

Other (please specify)
33. Do you currently educate children with the following disabilities? Please check "yes," "no," or "unknown" for each category.

<table>
<thead>
<tr>
<th>Disability</th>
<th>No</th>
<th>Yes</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autism</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developmental delay</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional disturbance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intellectual disability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attention Deficit Hyperactivity / Inattention Disorder</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific learning disability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traumatic brain injury</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orthopedic impairment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health impairment (NOT ADHD)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hearing impairment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Severe and profound disabilities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vision impairment</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

JHU - MCPS SET-IT Partnership Graduate Survey - L

Professional Demographics

These items ask about your professional certification and education experience.

34. What is the highest degree you have achieved?

☐ Master's Degree
☐ Educational Specialist or Professional Diploma (at least one year beyond a master's level)
☐ Certificate of Advanced Graduate Studies
☐ Doctorate (Ph.D., Ed.D, M.D., J.D, D.D.S.)

35. Which of the following categories best matches the special education teaching certification area you obtained by completing the SET-IT program?

☐ Elementary / middle (grades 1-8)
☐ Secondary / adult (grades 6-12)
36. Do you hold a teaching certificate in any of the following general areas? Please select "yes" or "no."

<table>
<thead>
<tr>
<th>Area</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Childhood Education (PreK - 3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary Education, grades 1-6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Secondary Content Areas (grades 7-12)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics Instructional Leader, PreK-6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specialty Areas (PreK - 12) (e.g., Art, Dance, Music)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

37. Do you currently teach students in any of these grade levels? (Please mark all grade levels you have taught this school year).

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early childhood (through grade 2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary (through grade 5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle (Grades 6-8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School (Grades 9-12)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Thank you for your participation! Your time and effort are appreciated and important to the research field of special education teacher preparation.

38. I would like to personally thank you for taking the time to participate in my dissertation study. Please select one of the following thank you gifts for completing this survey.

- [ ] I do not wish to receive a thank you gift.
- [ ] Please donate $5 to Maryland Special Olympics in the name of the SET-IT Graduates.
- [ ] Please send me a $10 gift card to Amazon (you will need to provide an email address to receive this gift).

Other (please specify)
39. Please provide an email address where I can send your Amazon gift card.

40. Would you be willing to participate in a 10-20-minute telephone follow-up interview? The informal interview is designed to collect your specific opinions and concerns about the preparation program and its relevance to your work and commitment to teaching.
   ○ No
   ○ Maybe
   ○ Yes

Please proceed to the following link to sign up for a convenient time to participate in the telephone interview.
https://www.surveymonkey.com/s/78TMQR7

41. This concludes our survey! Thank you, again for your support. If you would like to add any comments, please do. Otherwise, please accept my sincere gratitude!
Appendix B
Interview Protocol

<table>
<thead>
<tr>
<th>SET-IT Telephone Interview Protocol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voluntary Consent</td>
</tr>
</tbody>
</table>

1. Thank you for participating in this research study! Your participation is completely voluntary. Information obtained from this interview will be used for understanding and improving special education teacher preparation programs and partnerships with school districts. All information you provide will be kept anonymous.

By stating "I agree," and completing this interview, you are consenting to be in this research study. Your participation is voluntary and you can stop at any time.”

☐ I agree to participate in this interview.
☐ I do not agree to participate in this interview.

<table>
<thead>
<tr>
<th>SET-IT Telephone Interview Protocol</th>
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<tbody>
<tr>
<td>Eligibility Criteria</td>
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</tbody>
</table>

* 2. Did you complete the JHU - Montgomery County Public Schools Partnership Program, Special Education Teacher Immersion Training (SET-IT)?

☐ Yes
☐ No
☐ I don't know

3. In what year did you BEGIN the SET-IT program? (Please enter a year from 1994-2014):

☐

<table>
<thead>
<tr>
<th>SET-IT Telephone Interview Protocol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Information</td>
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</table>

1
4. All of the open-ended questions on the following pages may be answered as briefly or as extensively as you wish. About how much time do you intend to spend answering these questions?

- Less than 5 minutes
- 5-10 minutes
- 11-15 minutes
- 16-20 minutes
- 21-25 minutes
- More than 25 minutes

5. If you prefer to discuss these questions over the phone during a more personal interview, please provide a name (pseudonym), phone number, and the best time to call you. Otherwise, please skip this question to proceed.

6. Please describe your work experiences prior to becoming a special educator.

SET-IT Telephone Interview Protocol
Program Aspects
7. Why did you choose to participate in the SET-IT program?

8. Which program aspects provided by the university have been most helpful to you as a special educator?

SET-IT Telephone Interview Protocol

Mentoring / Induction Activities

9. Please describe your experience as a beginning special educator, from the time you began in the SET-IT program as an "induction intern," as a "culmination intern" and as a beginning teacher.

SET-IT Telephone Interview Protocol

District Characteristics
10. Which characteristics of your school and/or district have been helpful to your work as a special educator?


11. How would you describe your relationships with colleagues, including your SET-IT cohort, your lead teacher(s) during your internships, you mentor when you began teaching, other special educators, support personnel, and administrators?


SET-IT Telephone Interview Protocol

Retention

12. Please describe any professional advancement you experienced during your career as a special educator (e.g., memberships in professional organizations, presentations at professional conferences, promotions earned, etc.).


13. Please add any other thoughts you have regarding your experiences with the university, your school, your district, or personal influences that are relevant to your decision to remain a special educator.

* 14. How long do you plan to remain in the special education field?

- As long as I am able
- Until I am eligible for retirement benefits from this job
- Until I am eligible for retirement benefits from a previous job
- Until I am eligible for Social Security benefits
- Until a specific life event occurs (e.g. parenthood, marriage)
- Until a more desirable job opportunity comes along
- Definitely plan to leave as soon as I can
- I no longer work in the special education field
- Undecided at this time
- I have retired.

**SET-IT Telephone Interview Protocol**

**Demographic Information**

15. Are you male or female?

- Male
- Female
16. What is your race / ethnicity?
- White
- Black or African-American
- Hispanic or Latino
- Asian
- Native Hawaiian or Other Pacific Islander
- American Indian or Alaskan Native

17. What is your current age range?
- Under 30 years old
- 30-40 years old
- 41-50 years old
- 51-60 years old
- Over 61 years old

SET-IT Telephone Interview Protocol

Conclusion

Thank you for your participation! Your time and effort are appreciated and important to the research field of special education teacher preparation.

18. Please provide an email address if you would like to receive a $10 Amazon gift card for your participation.


CURRICULUM VITAE
Jaime True Daley
December 5, 1972
Baltimore, Maryland

EDUCATION
Ed.D. Johns Hopkins University, May, 2016 Special Education
Masters Equivalency Fayetteville State University, 2002 Special Education
B.A. Goucher College, 1996 Sociology

PROFESSIONAL EXPERIENCE
Johns Hopkins University 2011-2015 OSEP Funded Doctoral Fellow,
OSEP Funded Doctoral Fellow,
Faculty Associate, Special Education
Fayetteville State University 1999-2002 Adjunct Instructor,
Department of Special Education
Baltimore Leadership School 2013- Present Student Support and Special
Education
For Young Women Diagnostician and Chairperson
West Nottingham Academy 2012-2013 Director of Learning Services
Baltimore City Public Schools 2009-2012 Student Support and Special
Education
Medfield Heights Elementary School Diagnostician and Chairperson
Carroll County Public Schools 2001-2009 Special Education
Robert Moton Elementary School Diagnostician and Chairperson
St. Paul’s High School 1999-2001 Exceptional Needs Teacher
Robeson County Public Schools Resource and Life Skills

UNIVERSITY TEACHING

- Introduction to Children and Youth with Exceptionalities
- Classroom Management for Students with Mild to Moderate Disabilities
- Curriculum Adaptations and Interventions
- Educational Alternatives for Children with Special Needs (Online)
- Methods for Teaching Students with Emotional and Behavioral Disorders
- Collaborative Practices in Special Education

K-12 TEACHING

Baltimore City Public Schools, MD 2009-2010  Co-Teacher, 5th grade
Medfield Heights Elementary  Interventionist

Carroll County Public Schools, MD 2006-2009  Resource Teacher, pre-K-5th
Robert Moton Elementary 2001-2006  Therapeutic Teacher, 3rd-5th
Students w/ ED, LD, Autism

Robeson County Public Schools, NC 1999-2002  E.C. Teacher, 9th-12th grade
St. Paul’s High School  Students w/ID, LD, ED, ADHD

Archway Programs, NJ 1997-1998  Counselor/Teacher,
6th–12th. Non-Public  Students w/ ID, LD, Autism
Therapeutic School

Charles H. Hickey School, MD 1994 – 1996  Counselor/Teacher, 8th-12th
Residential/Juvenile Justice  Behavior support

NATIONAL PRESENTATIONS


**RESEARCH GRANTS**


**MANUSCRIPTS**


True, J.M. (in progress). *Pre-service teachers’ privilege: Revealing and reflecting on cultural and ability differences between teachers and students*. (Submitting to *Multiple Voices*).

True, J.M. (in progress). *Predicting graduation rates of students with executive functioning differences*. (Submitting to *Journal of Special Education*).

**PROFESSIONAL WORKSHOPS**

True, J.M. (2014, December). *Strategies to improve executive functioning*. Workshop presented to parents and faculty at Kent County Public Schools, Rock Hall, MD.


True, J.M. (2014, May). *Inter-disciplinary collaboration and co-teaching*. Workshop presented to faculty at the Baltimore Leadership School for Young Women, Baltimore, MD.

True, J.M. (2014, April). *Special education core knowledge: Disability characteristics and evidence-based teaching practices*. Workshop presented to faculty at the Baltimore Leadership School for Young Women, Baltimore, MD.


**PROFESSIONAL MEMBERSHIPS**

- American Education Research Association
- Council for Exceptional Children
- Learning and the Brain

**AWARDS**

Doctoral Fellowship, Johns Hopkins University, USDE OSEP 2011-2015
Best Literature Review, Kaleidoscope of TED, CEC 2012
National Board Certification as Exceptional Needs Specialist 2004-2014
Teacher of the Year, Carroll County, MD 2003
Graduate Assistant, Fayetteville State University 1999-2002