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THE RELATIONSHIP OF MENTORSHIP AND PROFESSIONAL DEVELOPMENT ON SPECIAL EDUCATORS' INTENT

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A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy at Virginia Commonwealth University.

by

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Abstract

THE RELATIONSHIP OF MENTORSHIP AND PROFESSIONAL DEVELOPMENT ON SPECIAL EDUCATORS' INTENT

By Christine S. Powell, M.Ed., M.S.

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy at Virginia Commonwealth University.

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Director: Colleen A. Thoma, Ph.D., FAAIDD, Professor, Department of Counseling and Special Education

Current literature in special education has examined professional development (PD) and mentorship separately; however, no studies have investigated the relationship between PD and mentorship on special education teachers' intent. The purpose of this study was to examine the extent to which participating in PD and mentorship opportunities predicted the likelihood of Early Career Special Education Teachers' (ECSETs) intent to leave the teacher workforce while examining factors related to duration and quality. Based on two conceptual models, Desimone's (2009) best practices for professional development and Nick et al. (2012) best practices for academic mentoring, this study identified key features and characteristics that contributed to developing the SPED Mentorship and Professional Development Survey. Results indicated that the number of hours spent receiving professional development and mentorship had a significant association with ECSETs' intent to leave. Further, results showed that high-quality PD had a significant association with ECSETs' intent to leave. Limitations and implications for special education research, practice, and policy are discussed.

Chapter 1

Introduction

In this chapter one, I provide an (a) overview of current trends regarding the special education teacher workforce; (b) background of the study; (c) rationale for the study; (d) statement of purpose; (e) research questions; and (f) summary of the dissertation contents. Due to alarming teacher vacancies, special education teacher (SET) attrition burdens our educational system. Special educators leave the field for various reasons, including feeling unprepared (McCoy et al., 2013) and experiencing unfavorable working conditions (Billingsley, 2004; Billingsley & Bettini, 2019). One way to address teacher preparedness is by providing professional development and mentoring opportunities. Since SETs require support in performing tasks unique to their roles (e.g., caseload management), they benefit from individualized professional support compared to other disciplines (Mason-Williams, 2015). Early Career Special Education Teachers (ECSETs) benefit from ongoing training and mentorship (Sindelar et al., 2010). Although researchers report the benefits of receiving professional development (PD) and mentorship, there are conflicting views and an overall lack of research regarding whether the duration and quality of PD and mentorship are associated with special education teachers' plans to leave the teaching profession. For example, Gehrke and McCoy (2007) found that SETs who identified as "stayers" recognized mentorship (informal or formal) as essential to their role. On the contrary, Connelly and Graham (2009) examined the likelihood that ECSETs would leave the field if they had minimal or no pre-service student teaching. Based on this study, 60 percent of the SETs mentioned they worked "closely" with a mentor; however, findings suggest that receiving mentorship did not predict teacher intent to stay (Connelly & Graham, 2009).

Given the lack of research regarding the relationship between PD and mentorship on special educators' intent to stay or leave, this study aims to examine to what extent, if any, does duration and quality of PD and mentorship have an association with ECSETs' plans to leave the teaching profession. Findings from this study have the potential to reveal specific characteristics of PD and mentorship that lead to ECSETs' retention.

Special Education Teacher Workforce

For decades, schools across the United States of America have faced a shortage of high-quality SETs (Brownell et al., 2002; Jones et al., 2013; Mason-Williams, 2015; McLeskey et al., 2004). Special education teacher attrition rates were more than double (80%) the national average when compared to other teachers (Carver-Thomas & Darling-Hammond, 2017). The United States Department of Education, National Center for Education Statistics Schools and Staffing "main" survey was completed by teachers in 2015. However, teacher follow-up data was not included and did not allow researchers to examine teacher attrition. The lack of retaining qualified SETs is a national concern (Berry, 2012). As a response, school districts often hire teachers who do not have the academic preparation to address students' complex and unique needs (McLeskey & Billingsley, 2008). Teacher attrition affects student achievement (Achinstein et al., 2010; Ingersoll & Perda, 2010; Jones et al., 2013; Ronfeldt et al., 2013) and the quality of instruction for students with disabilities (Berry et al., 2011). The nature of teacher attrition warrants continued research to understand what contributes to ECSETs' likelihood of remaining the teaching profession.

Ample evidence suggests that working conditions are strong predictors of understanding SETs' intent to stay or leave the field (Billingsley & Bettini, 2019; Mee & Haverback, 2014; Morewood & Condu; 2012). For example, the demands of a SET's caseload are likely to

influence teacher attrition (Hagaman & Casey, 2018). When SETs face challenges with classroom management, lesson planning, and other demands, they must receive timely and relevant support (Foote et al., 2011). Researchers suggest that SETs who receive support from administrators and other professionals (e.g., related service providers) are more likely to remain in the field (Berry, 2012; Billingsley et al., 2014); support and guidance could also come from a trusted colleague or mentor.

According to Sutcher et al. (2016), receiving mentorship during induction increases teacher retention rates and builds competence and self-efficacy. Similarly, Rose and Sughrue (2020) stated that providing appropriate PD and administrative support improves teachers' overall effectiveness and self-efficacy. Research on teacher preparedness supports the notion that well-prepared teachers are more effective and are more likely to remain in the field due to feeling satisfied (Connelly & Graham, 2009). Teacher preparedness also influences how teachers provide instructional support and navigate the educational setting (Darling-Hammond, 2016). SETs who are new to the teaching profession require guidance to apply learned skills from preparation. One way to provide guidance for ECSETs is by providing opportunities for receiving mentoring during teacher induction. Mentorship is essential in assisting teachers with addressing problems of practice by receiving feedback, which can help with improving instruction over time (Billingsley & Bettini, 2017). It is necessary to prepare teachers for the context of their learning environment to cultivate positive student outcomes (Darling-Hammond, 2016).

McCoy et al. (2013) found that novice teachers leave the teaching profession because they do not receive adequate support and guidance to develop as teachers. Current literature suggests that mentorship enhances the retention of general education teachers (Ingersoll &

Strong, 2011). However, there is a lack of research to support the impact of mentoring on SET retention (Billingsley, 2004; Billingsley & Bettini, 2019). López-Estrada & Koyama (2010) found that SETs value mentoring relationships. Similarly, Larkin et al. (2018) found mentoring was positively related to teacher retention; however, they did not specify mentoring characteristics (e.g., duration, quality) that were more significant in teachers staying in the teaching profession.

Researchers have found that teachers benefit from PD, which can equip them to meet the diverse needs of students with disabilities (Shady et al., 2013). If SETs do not receive training, they may lack the skills needed to implement inclusive practices when working alongside general education teachers (Garwood et al. 2018). This is important because students requiring special education services may not receive differentiated instruction to meet their individual needs, which may minimize the chance of closing the academic gap between them and their same-aged peers. Additionally, SETs may face challenges working collaboratively in the general education or collaborative setting. To improve instruction over time, it is essential for SETs to receive PD to learn more about evidence-based practices. For example, a SET in their first year of teaching may require support and training in time management, effective communication techniques, and building relationships (Hagaman & Casey, 2017). ECSETs who receive support in the mentioned areas may experience long-term gains in improving instructional delivery and have a better context for supporting students with disabilities.

Policies on Mentorship and Professional Development

Professional development and mentorship practices are seen in federal education laws such as the Every Student Succeeds Act (ESSA, 2015) and the Individuals with Disabilities Education Act (IDEA, 2004). Laws such as ESSA drive how state and local governments should carry out support for students and teachers. This law and other laws serve as guidelines to hold

school districts accountable for enriching the experience of students by promoting academic success for all. The federal laws that will be discussed in this chapter will share details and requirements for providing PD and mentorship to teachers.

Every Student Succeeds Act. Research is not the only place that highlights the importance of PD for teacher development. A key statute mandated by law to ensure that all school staff, including paraprofessionals, receive ongoing evidence-based professional development is the Every Student Succeeds Act (ESSA, 2015). ESSA is the reauthorization of the No Child Left Behind Act (NCLB) of 2001. ESSA explicitly defines professional development as a set of activities (not stand-alone, 1-day, or short-term workshops), that are intensive, collaborative, job-embedded, data-driven, and classroom-focused (ESSA, 2015). According to ESSA, professional development must be a part of a broader school improvement plan, developed with educators' input and evaluated regularly. Additionally, ESSA's definition versus the No Child Left Behind Act of 2001, increases access to professional development under Title II to include teachers of all subjects and school leaders (e.g., administrators). It replaces "scientifically based" with "evidence-based" for the requirements of all professional development programs and activities related to academic and behavioral interventions and literacy instruction. The law does not mention a specific timeframe for how long professional development should occur beyond stating that it should be a set of activities that is not a standalone or one-day event nor does it specify how to evaluate the quality of professional development.

Individuals with Disabilities Education Act (IDEA) of 2004. Unlike ESSA, under the IDEA (2004), professional development is not explicitly defined. There are sections such as the Early Intervening Services (Sec.300.226) and State Personnel Development Grants (Sec.1454,

"Use of Funds") that provide explicit uses for professional development. For example, Section 300.226(b)(1)(2) includes activities that Local Education Agencies (LEAs) can use when implementing early intervention services. Sec. 300.226(b)(1)(2) state the following:

> (1) Professional development (which may be provided by entities other than LEAs) for teachers and other school staff to enable such personnel to deliver scientifically-based academic and behavioral interventions, including scientifically based literacy instruction, and, where appropriate, instruction on the use of adaptive and instructional software; and (2) providing educational and behavioral evaluations, services, and supports, including scientifically based literacy instruction (ESSA, 2015).

The State Personnel Development grants provide funding for state programs, including professional development and mentoring opportunities for special and general education teachers. The law states that the use of funds under Sec.1453 includes but is not limited to the following: (a)(1)(a) provide teacher mentoring, team teaching, reduced class schedules, and caseloads, and intensive professional development; and providing professional development activities under Sec.1454 (3)(a)(i)(ii):

> (a) Improve the knowledge of special education and regular education teachers concerning- (i) the academic and developmental or functional needs of students with disabilities or (ii) effective instructional strategies, methods, and skills, and the use of State academic content standards and student academic achievement and functional standards, and State assessments, to improve teaching practices and student academic achievement (IDEA, 2004).

Based on this grant initiative, it emphasizes the significance of PD activities to improve the practices for SETs and those of general education teachers. Ultimately, the goal is to increase

teacher preparedness and quality to serve students with disabilities better, leading to improved academic and post-secondary outcomes.

Study Rationale

Current legislation provides competing definitions of PD and embeds mentorship as ways to prepare SETs to be successful in the classroom, thus, increasing appropriate support for students identified as having a disability and qualified to receive special education services. It is vital for SETs to have the training and support needed to work with students with varying needs. Participation in PD may improve teacher quality, which can potentially improve student achievement (Barrett et al., 2015; Vitelli, 2015). Therefore, it is important to examine if ongoing professional development and mentorship influence ECSETs' likelihood of staying or leaving the field. By assessing key characteristics, duration, type of PD activities, mentorship, and ECSETs' perceptions of quality of professional development and mentorship, researchers can better understand which factor(s) play a role in ECSETs' plan to stay in the teacher workforce.

Conceptual Underpinnings

The need for PD and mentorship is evident in federal policies and current literature. As I examine whether PD and mentorship influence ECSETs' intent to remain in the teacher workforce, I will use the lens of best practices for professional development (Desimone, 2009) and mentorship (Nick et al., 2012). These two conceptual frameworks consider the context in which PD and mentorship are delivered and how to evaluate whether participants benefited from participating in the activities or program. For example, an ECSET will know if PD is effective if it improves instruction over time and impacts the work they do with students. Similarly, if participating in a mentorship program is effective for ECSETs, how they are socialized into the educational setting and engaged in mentoring activities has the potential to lead to retention.

Statement of Purpose

The goal of this study is to extend research on ECSET's intent to remain in the teaching profession by examining factors related to PD and mentorship. Key characteristics from the literature will provide context for effective PD and mentorship models. This study will identify if factors such as duration, quality of PD, and mentorship predict whether ECSETs plan to leave the teacher workforce. This research will inform best practices for developing and implementing future models for teacher preparation programs and school districts.

Research Questions

Q1: What is the relationship between the type of professional development received and the likelihood that Early Career Special Education Teachers (ECSETs) remain in the teacher workforce?

a. How does the duration of professional development impact ECSET's intent to leave the teacher workforce?
b. How does the quality of professional development impact ECSET's intent to leave the teacher workforce?
c. How does the duration and quality of professional development impact ECSET's intent to leave the teacher workforce?

Q2: What is the relationship between ECSETs who receive mentorship and their intentions to remain in the special education teacher workforce?

a. How does the duration of mentorship impact ECSET's intent to leave the teacher workforce?
b. How does the quality of mentorship impact ECSET's intent to leave the teacher workforce?

c. How does the duration and quality of mentorship impact ECSET's intent to leave in the teacher workforce?

Q3: How does receiving both mentorship AND professional development relate to ECSET's intention to leave the teacher workforce compared to receiving only one of the components?

Definitions

Early Career Special Education Teacher: A special education teacher within the first five years of teaching.

Teacher Attrition: A "special education" teacher leaving, moving, transferring, or stating intent to leave (Billingsley & Bettini, 2019).

Teacher Intent: A "special education" teacher's plan to stay or leave the field within 1- 5 years (Billingsley & Bettini, 2019).

Formal mentorship: The organization (e.g., school district or entity) develops a program and process for mentoring to take place (Inzer & Crawford, 2005).

Informal mentorship: "Occurs in a relationship between two people where one gains insight, knowledge, wisdom, friendship, and support from the other. Either person may initiate the mentoring relationship, the mentor to help the other, the protégé to gain wisdom from a trusted person" (Inzer & Crawford, 2005, pg. 35).

Mentorship: Mentorship occurs when a more experienced and knowledgeable faculty member (mentor) and less experienced (protégé) form a one-to-one reciprocal relationship, which includes consistent interactions over a period of time to help the protégé develop (Haggard et al., 2011).

Professional development: Professional development includes facilitated teaching and learning opportunities that are designed to increase professional knowledge, skills, and dispositions that lead to the application of this knowledge (The National Professional Development Center on Inclusion (NPDCI) as cited in Buysse et al., 2009).

Teacher Retention: "Teachers who remained in the same teaching assignment and the same school as the previous year" (Billingsley, 2004, p. 40).

Summary of the Study

This dissertation includes the following five chapters: (a) introduction to the study, (b) literature review, (c) methodology, (d) results, and (e) discussion. Chapter 1 provided an overview of the SET workforce and the purpose of this study. In this study, I will explore key characteristics of PD and mentorship that potentially contribute to ECSETs staying or leaving the field. In Chapter 2, I will discuss effective PD and mentorship strategies and the need for more research in SET retention research. Chapter 3 will describe the research methodology for this study, including the participants, research design, and data collection procedures. Chapter 4 includes the findings and results of each research question, and Chapter 5 includes the discussion and implications of the results.

Chapter 2

Literature Review

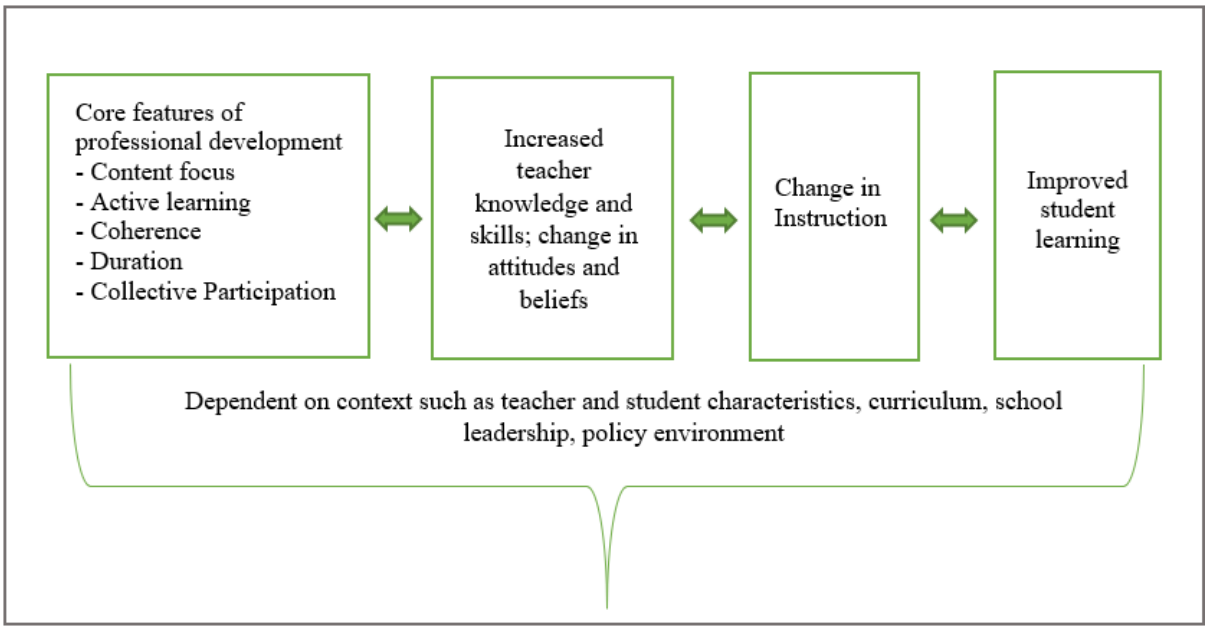
Chapter 1 provided an overview of the special education teacher workforce and the need for more research examining additional components (e.g., duration and quality) of PD and mentorship on SETs' intent to stay or leave. Chapter 2 includes a comprehensive literature review of current special education research focused on the impact of professional development and mentorship. I introduce two conceptual models that contain best practices for effective professional development and best practices in academic mentoring.

Researchers have found that the most vulnerable population for teacher attrition are ECSETs (Albrecht et al., 2009; Tickle et al., 2011). ECSETs are those who have less than five years of teaching experience. Often, they leave the profession at higher rates than general education teachers due to working conditions and other factors (Billingsley & Bettini, 2019; DeAngelis & Presley, 2011). Nearly half of SETs leave the field (Tickle et al., 2011), especially those within their first year of teaching (Smith & Ingersoll, 2004). Teacher preparation programs can prepare ECSETs for their transition to the workplace by providing induction support, professional development, and mentoring opportunities to combat teacher attrition. Induction programs serve as a premise for orienting ECSETs to their school culture and climate while promoting self-efficacy related to their new role. According to Billingsley et al. (2019), teacher induction aims to support teacher effectiveness, improving student learning and teacher retention. Teacher induction activities include but are not limited to teacher's participation in classroom observations, assignment of a mentor, and new teacher orientation (Ingersoll & Strong, 2011; Kamman & Long, 2010).

Conceptual Framework

To better understand the effectiveness of PD on teachers and student outcomes, Desimone (2009) proposed a conceptual model that included five core features (see Figure 1). The core features are content focus, active learning, coherence, duration, and collective participation. Content focus is when "activities focused on subject matter content and how students learn content" (Desimone, 2009; Desimone & Garet, 2015). Active Learning includes a teacher's opportunity to observe an expert teacher or the opportunity of being observed, receiving feedback, reviewing/analyzing student work, or leading presentations. Coherence is the extent to which teacher learning is consistent with the school curriculum and goals, state reforms, and policies, teacher knowledge, and the needs of the students. Duration requires professional development activity to be ongoing throughout the academic year and include 20 hours or more of contact time. Collective Participation is the active participation of teachers from the same school, grade, or department. Using this conceptual framework, researchers examine how professional development changes teacher knowledge, beliefs, or practices and how this impacts student achievement (Desimone, 2009). For the purpose of this literature review, Desimone's (2009) core conceptual framework will serve as a guide for reviewing research related to professional development outcomes for special educators.

Figure 1. Proposed core conceptual framework for studying the effects of professional development on teachers and students (Desimone, 2009).



Additionally, to gain insight into the effectiveness of mentorship within the special education teacher workforce, I adopted the "Best Practices in Academic Mentoring: A Model for Excellence" (Nick et al., 2012). To minimize the shortage of experienced nurse educators, Nick and colleagues developed a conceptual model, including six best practices in mentoring. The goal of the model is intended to provide an overview for establishing a formal mentorship program and components that aid in the socialization and preparation of nurse educators. Although the conceptual model was created for nurse education, what makes this model attractive is the goal of improving the retention of nurses. Since there is not a current model within special education research for mentorship, the components of this conceptual model can serve as a guide to build upon for this study and future studies related to mentorship. Below Figure 2 illustrates each key component for mentorship and characteristics to guide the mentoring relationship.

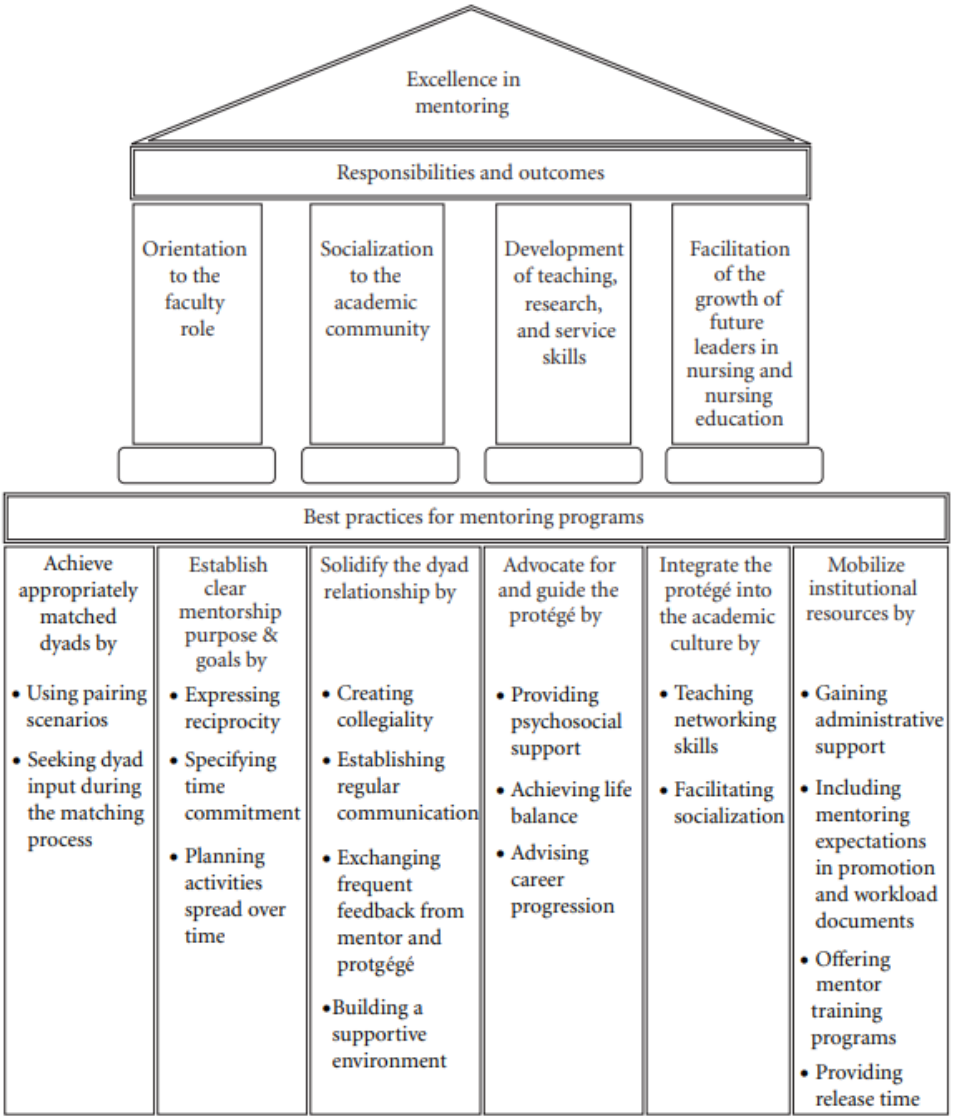
Within the Best Practices in Academic Mentoring Model, there are four pillars of excellence in mentoring that are connected to responsibilities and outcomes: (a) orientation to the faculty role, (b) socialization to the academic community, (c) development of teaching, research,

and service skills, and (d) facilitation of the growth of future leaders in nursing and nurse education. To accomplish these goals, it is recommended to implement the best practices for mentorship that involve appropriately matching dyads (a mentor and protégé), establishing clear mentorship purpose and goals, solidifying the mentor and protégé relationship, advocating and guiding the protégé by providing support and advising, integrating the protégé into the academic culture, and mobilizing institutional resources. Based on Haggard et al. (2011), mentorship occurs when a more experienced and knowledgeable faculty member (mentor) and less experienced (protégé) form a one-to-one reciprocal relationship, which includes consistent interaction over a period of time to help the protégé develop. While some criteria such as providing advising career progression and release time will depend on an individual's goals and school district implementation of mentoring programs, SETs may have the opportunity to receive such mentorship during their career. The Nick et al. (2012) conceptual framework will serve as guidelines when reviewing special education literature on the influence of mentorship on retention outcomes. One characteristic of this model is to consider the different ways a mentor and protégé relationship is formed. In this model, the mentor and protégé relationship can develop by administration assignment based on arbitrary or specified criteria, based on the protégé selection or mentor selection, and paired based on finding each other and creating their own dyad relationship (Nick et al, 2012). However, when the mentor and protégé participate in a formal mentorship program, an option to voice their selection may not be allowed.

In this study, the two conceptual models will serve as guides to examine current literature in special education related to PD and mentorship. I will seek to review how researchers have examined PD and mentorship through the lens of their impact in promoting ECSETs' retention. Additionally, evidence from the literature on improved teacher practices (e.g., instructional

delivery) and socialization in the school environment, and ECSETs' intent to stay will serve as concrete indicators of program effectiveness. Through this lens, research questions, and other aspects of this study are shaped to better understand how each component contributes to the overall development of ECSETs.

Figure 2. Best Practices in Academic Mentoring: A Model for Excellence (Nick et al., 2012).



Literature on Special Education and Professional Development

Researchers examining PD suggest that meaningful professional development can alleviate unwanted frustrations for SETs and support teaching while targeting job-related

stressors (e.g., workloads and deadlines; Hester et al., 2020). Frey (2009) conducted a qualitative study focused on exploring the effect of a project-based online professional development experience on SETs and their K-12 students with disabilities. SETs completed activities (e.g., journal entries) and engaged in a collaborative learning community to improve teaching skills. These communities offered SETs a chance to discuss their implementation of academic interventions for their students with the instructor and two peer coaches. The four SETs who participated in the study reported that they understood special education concepts better, and their students showed improved skills related to activities such as reading comprehension and multiplication. These SETs were more likely to continue conducting interventions for other students (Frey, 2009). The findings in this study reveal the effectiveness of PD on instructional delivery and implementation; however, the results did not include factors related to special education teacher intent. Due to the small sample size, researchers could not make a definitive conclusion regarding the impact of the online project-based model.

Special education teachers value PD opportunities that directly relate to improving their practice (Gehrke & McCoy,2007) and addressing their specific needs related to special education paperwork, behavioral challenges, and time management (White & Mason, 2006). Professional development must provide teachers with a network of collegial support and offer manageable strategies for implementation (Leko & Brownell, 2009). For example, Berry (2012) conducted a study inquiring about rural special education teachers' specific professional development needs. A total of 203 special education teachers participated in the study. The SETs in this study believed they needed additional support with general education content and extra support when working with students diagnosed with autism, emotional behavior disorders, and other low-incidence disabilities. They did not feel that their certification program prepared them for

working with students with low-incidence disabilities. Additionally, SETs desired PD for collaborating with parents and paraprofessionals (Berry, 2012). Similarly, Shady et al. (2013) conducted a mixed-method study examining the perceptions of inclusion and identifying the professional development training needs of general and special education teachers. Results from pre- and post-data showed that most teachers did not feel more knowledgeable about inclusive practices after participating in professional development training on topics related to but not limited to, the benefits of inclusion, characteristics of what inclusive practices entail, and different instructional methods. However, the qualitative data shared a different story, revealing that general and special education teachers find professional development training beneficial and recommend it is ongoing. Additionally, general education and special education teachers requested specific training on differentiated instruction and accommodations for students with disabilities (Shady et al., 2013).

Another study related to PD recommended that SETs require learner-centered professional development (McLeskey, 2011). Learner-centered professional development includes ongoing collaboration, modeling, practice, and reflection. Researchers found that SETs who participated in ongoing PD improved their instructional practices over time and could meet their students' needs (McLeskey, 2011). These findings are consistent with Hagaman and Casey (2018), who found that preservice, ECSETs, and school administrators identify mentorship and specialized training (professional development) as the support they expect to receive when they enter the teacher workforce. Specialized training includes topics related to special education, such as writing an Individualized Education Plan (IEP) or specialized curriculum. Both studies demonstrate the need for embedding core features of PD (e.g., active learning) into teacher development programs. This would allow SETs to take a less passive approach and engage in

learning, applying what they learn in real-time while also receiving feedback on their implementation.

Professional Development and Special Education Teacher Intent

Research studies focusing on the impact of PD and special education teachers' intent are limited. Albrecht et al. (2009) conducted a pilot study to understand better working conditions of SETs who served students with emotional behavioral disorders (EBD). They examined if SETs were planning to leave their position within the next two years. In collaboration with the Council for Children with Behavioral Disorder (CCBD), 776 teachers and related service providers completed the survey. This study revealed that one of the most important working conditions at the district level was having access to meaningful professional development (Albrecht et al., 2009). The population limits the findings from this study; only members of a targeted group were invited to participate.

To further understand why SETs, leave nationally, it is important to cast a wide net to learn more about SET's intent to stay or leave the profession. The same is evident in a comparable study conducted by Cancio et al. (2013); researchers surveyed 408 special education teachers who taught students diagnosed with EBD. They sent their survey to CCBD members; however, these researchers were interested in SETs' perception of administrative support on their intent to remain in the teacher workforce. Researchers found that SETs with administrators who provided them with learning opportunities and information to improve their classroom practices planned to stay in the teacher workforce (Cancio et al., 2013). The findings of this study highlighted a SET's need for guidance and feedback; some examples include SETs wanting to receive frequent feedback about their performance and have access to up-to-date instructional and behavioral techniques. However, to better understand working conditions for ECSETs,

questions about the quality and duration of PD could aid in whether this is an area that ECSETs report satisfaction for remaining or leaving the field.

Not all researchers agree that PD related to induction support is connected to teacher intent. Glazerman et al. (2010) conducted a study using a randomized control trial where one group of SETs received more extensive induction support (weekly mentor observations and conferences, etc.) and the control group continued with receiving professional development provided by the school district with no changes. They found that teacher induction was not related to SET retention, instructional practices, or student achievement. Although the researchers stated their study was a randomized control trial, they did not have a true control group because they could not account for the type of support those SETs received who participated in a traditional program. SETs who participated in traditional programs could receive similar support as teachers receiving extensive support. Contrary to the results of Glazerman et al. (2010), Rondfeldt and McQueen (2017) conducted a study using the School and Staffing and Teacher Follow-up Surveys and the Beginning Teacher Longitudinal Survey. They found significant effects related to induction and teacher attrition. First year teachers were less likely to leave the teaching profession if they received induction support; having a mentor and receiving supportive communication from administrators decreased the odds of leaving. To minimize selection bias, Rondfeldt and McQueen (2017) used propensity score matching. Propensity score matching was used to group teachers by propensity scores and comparte teachers based on their score instead of comparing all teachers or those who did not receive induction support.

Applying Desimone's 2009 Conceptual Framework to Professional Development

The special education literature found on professional development and intent did not include all core features from Desimone's best practices for professional development model. All special education research findings focused on content focus, active learning, and collective participation (Albrecht et al., 2009; Cancio et al., 2013; Glazerman et al., 2010; Rondfeldt & McQueen, 2017). One study, (Glazerman et al., 2010) reported the timeframe (beginning of the school year to the end of the school year) SETs participated in professional development; no other studies discussed details related to duration. Additionally, no studies discussed alignment with school curriculum or goals (coherence), or the amount of time teachers participated in professional development training (duration).

Literature on Special Education and Mentorship

Access to mentorship for ECSETs has the potential to improve teacher quality (e.g., instructional delivery) and maximize retention efforts (Billingsley et al., 2019; Griffin et al., 2003; Ingersoll & Strong, 2011). SETs' roles vary by school and school district based on their assigned grade level(s), students, and the type of service delivery models (e.g., co-teaching) used in their classrooms (Mathews et al., 2017). Researchers suggest that mentorship is a key component in supporting new teachers to improve overall effectiveness during induction (Gehrke & McCoy, 2007; Griffin et al., 2003; Ingersoll & Strong, 2011; White & Mason, 2006). In a study conducted by Israel et al. (2014), 16 early ECSETs who received emotional and professional support from a mentor during induction improved their instructional practice during their first year of teaching. The mentors in this study used a formal evaluation process to provide feedback. Mentors provided emotional support "within the context of professional supports" (Israel et al., 2014, p. 61). For example, when the ECSETs faced a challenging situation, the

mentors were available to provide explicit and detailed recommendations for improving their practices (Israel et al., 2014). Similarly, Kamman and Long (2010) found that ECSETs who received mentorship from an instructional facilitator, school-based mentor, and district-level mentor for three years improved their instruction. Given the support of their mentors and the use of student data to inform their teaching, teacher quality improved, and the school district retained the majority of its new SETs (Kamman & Long, 2010). This study not only highlights the duration and commitment of mentorship (three years) for both the mentor and mentee, but the level of impact on instruction and retention. Based on the findings, the components of this mentorship program also led to increased teacher knowledge and skills, as well as change in attitudes about remaining in the teacher workforce (Kamman & Long, 2010); these outcomes correlate with core features from best practices of effective professional development (Desimone, 2009). In its collaborative nature, mentorship is a component of professional development programs that require teachers to have resources and support from administrators.

Principals play a vital role in supporting SETs during the induction and mentoring process (Correa & Wagner, 2011). Their leadership can help promote a positive school climate that welcomes collaboration among professionals (general and special education teachers) and ensures that teachers have the resources to perform their job responsibilities (Billingsley et al., 2017). Principals who participate in mentor/mentee matching to pair teachers based on their individualized needs can actively encourage teacher retention (Correa & Wagner, 2011). Teachers are more likely to receive individualized support and a colleague match that can provide guidance in addressing their concerns. Collegial support during induction helps ECSETs make sense of their job responsibilities (Jones et al., 2013). Jones et al. (2013) examined the mentoring relationship of general and special education teachers in Michigan and Indiana. In

Michigan, all novice teachers were assigned a mentor teacher for three years, and a minimum of one year in Indiana (with a recommendation for mentoring during year two). Researchers found that strong relationships with colleagues increased teachers' overall commitment to the teacher workforce (Jones et al., 2013). They also found that teachers benefit from receiving individualized support to address specific challenges related to their role as a special educator (Jones et al., 2013). When teachers (general and special education teachers) received such support, they were more likely to report that they would remain in the teacher workforce.

Types of Mentorships

Informal Mentoring

Since SETs require differentiated and individualized support, mentorship may happen both informally and formally. Formal mentorship may involve school districts providing PD for all new and returning teachers. Informal mentorship may happen simultaneously because of seeking a colleague's guidance about a concern or information regarding the school/school district. In a recent qualitative study conducted by Chapman et al. (2021), Lauren, an ECSET received informal mentorship from Joanna, a "mid-career" special education teacher. Two themes emerged from the study: (1) discrepancy between need and availability (perceived support needs and the quality, relevance, and availability provided) and (2) filling the gaps together (the informal partnership formed to address discrepancies between the support the special educators felt they needed). The two special educators in this study strongly believed that PD must be presented in the context of special education. For example, the school district provided professional development, however, it did not directly align content with the challenges they faced in the classroom (Chapman et al., 2021). As a result, Joanna and Lauren formed a mentoring relationship that allowed them to work closely with one another, solve problems, and

provide one another with emotional support. Joanna shared that the mentoring relationship with Lauren renewed her passion for teaching (Chapman et al., 2021). This informal mentoring relationship proved to be beneficial for both teachers. While best practices for mentoring programs include matching dyads, there are situations where teachers establish mentoring relationships outside of programs that have a lasting impact on a special educator's reasons to remain in the profession. When conducting future studies, capturing how the mentoring relationship is formed could provide additional context for which types of relationships predict whether the relationship influenced their intent over time. As the special education attrition rate continues to rise annually, we must learn more about what can keep ECSETs in the workforce; uncovering the multiple aspects of mentorship received may lead to expanding what we know about teacher retention.

Billingsley et al. (2004) examined the working conditions and induction support of ECSETs. In this study, ECSETs reported high ratings for informal help received from other colleagues when compared to the helpfulness of formal mentorship. The SETs in this study sought the support of their colleagues when their formal induction program did not provide relevant support. These SETs used feedback from colleagues to assist with implementing instructional practices. Based on this study, SETs were forced to go outside of their induction program to receive support due to not receiving support from their assigned mentor. Implementing accountability standards that align with best practices for mentoring such as establishing regular communication and building a supportive environment may increase the chance of mentor/mentee deepening their relationship.

Formal Mentoring

Formal mentorship is a way to assign a mentor to a novice teacher to ensure that all teachers who need mentoring will receive it (Wasburn et al., 2012). Wasburn and colleagues conducted a study to determine the extent that National Board Certified Teachers (NBCTs) in special education engaged in formal and informal mentorship. They found that most teachers participated in informal mentoring when compared to formal mentoring. Formal mentoring included strategies such as sharing instructional techniques, providing emotional support, giving professional advice, and sharing classroom management. The most reported informal mentorship included items such as building confidence and providing encouragement. In this study, special education teachers who served as an informal mentor were less likely to observe teachers in the classroom setting and provide guidance on curriculum. However, SETs who were held accountable by formal mentorship participated in formal observations, which led to providing feedback to early career teachers, creating opportunities to improve the quality of instruction (Wasburn et al., 2012). This study emphasizes the potential benefits of increasing mentor participation of NBCTs when participating in formal mentorship programs. Although formal mentorship is often seen to guarantee mentor/mentee relationships, this is sometimes not the reality for all teachers. In a comparative study, Wasburn-Moses (2010) examined state and district mentoring policies and practices for general and special education. Based on the data, mentorship opportunities, and implementations varied by school district. Overall, SETs across all school districts were more likely to report the unavailability of a mentor when compared to general education teachers. Although school districts present mentoring opportunities in a variety of ways, future research must examine how to meet the needs of general and special education teachers. When assessing teacher needs, it is essential to identify current mentoring practices and allow teachers to give voice to what has impacted their teaching practice, if anything.

E-mentoring

Reflecting on the pandemic and the impact of COVID-19 on the educational system, it is important to examine the practice of virtual mentoring. Many schools across the United States relied on virtual (e.g., Zoom, Google Classroom) options for teaching, meetings, and other school events that were typically held in person. There was a shift in the way students and parents connected with administrators and teachers. COVID-19 changed the way everyone connected. When we think about the timeliness of mentorship and individualizing the process to meet a special educator's needs, another form of mentorship is called "E-mentoring." Smith and Israel (2010) define E-mentoring as "the use of computer-mediated communications such as e-mail, discussion boards, chat rooms, blogs, Web conferencing, and the growing Internet-based solutions that are changing the way mentors and mentees interact" (p. 30). According to Smith and Israel (2010), technology-based learning or online/e-learning is becoming an accepted delivery model to provide teacher support. Research on E-mentoring is emerging within special education literature. A few studies related to initiatives of online mentorship are focused on teaching in Math and Science. The purpose of e-mentoring is to provide relevant support to early career teachers through a differentiated experience. The mentor may not be a person within the school building or school district; however, they are matched based on the same teaching assignment. E-mentoring also has components that align with best practices for effective professional development (Smith & Israel, 2010). Since E-mentoring is not timebound or dictated by traditional programs, the duration of the mentorship is based on the mentee's needs. E-mentoring builds on the idea that as long as mentorship is received from a SET in the same assignment, SETs will face potential gains (Smith & Israel, 2010). This differs from Gehrke and

McCoy (2007) found that although SETs were assigned a mentor familiar with the field of special education, first-year special education teachers relied on SETs at their school for information and support.

Impact of Mentorship

Over the years, researchers have examined the impact of mentorship on SET's intent. Successful mentoring is effective when it improves teacher quality and retains early career teachers and experienced teachers (Washburn-Moses, 2010). After surveying 156 first-year SETs, Whitaker (2000) found that mentees who perceived mentorship as effective were more likely to continue teaching. First-year SETs who received weekly check-ins from a mentor were more likely to report that mentorship was effective. However, mentees who did not meet weekly with a mentor often rated mentoring as ineffective. Mentees also valued mentors who shared their knowledge of special education. Overall, the frequency or amount of contact between the mentee/mentor was a key factor in perceived effectiveness (Whitaker, 2000).

A study focused on retaining Mexican American SETs found that special educators reported the benefit of having a mentor (López-Estrada & Koyama, 2010). In this study, mentors showed SETS how to advocate for their students with disabilities and modeled persistence to remain in the teaching profession. The SETs reported a love for working in the special education field and valued collegiality (e.g., administrative, and collegial support) and flexibility. Comparably, Scott and Alexander (2019) conducted a study focused on strategies for retaining Black male SETs. In this study, participants shared the benefits of having a mentor of color who understood the special education field. Participants believed that a person of the same race could help them navigate their current program and by witnessing what their mentor has accomplished, they believe there were opportunities for them in the future. Both studies included teachers from

minority backgrounds sharing their perspectives on mentorship or their perceived benefit of receiving support from mentors. While these studies did not focus on the impact of mentorship on teacher retention, SETs voiced the benefit of having such relationships.

Conversely, Schlichte et al. (2005) conducted a case study on five ECSETs to better understand the mentor/mentee relationship. They found that the majority (three out of five) reported a lack of support from mentors and principals. The ECSETs shared that this lack of support contributed to them resigning at the end of the year. However, only one SET remained in the field after the first year; this SET shared that he received hands-on support from a mentor. Similarly, White and Mason (2006) found that new teachers reported that having a mentor teacher, involvement of administrators, and participating in a mentoring program had "very little" to "moderate" influence on whether a SET remained in the field or on their success in the classroom. However, 98.5% of all new SETs (n = 147) stated that the school districts should continue the mentoring program. Special education teachers also reported that they benefited from receiving support from mentors regarding special education paperwork and IEPs.

Applying Nick et al. (2012) Conceptual Framework to Mentorship

The special education literature found on mentorship and intent included core features related to Nick et al (2012) best practices in academic mentoring. The majority of the studies focus on solidifying the dyad relationship through exchanging frequent feedback from the mentor and protégé and building a supportive environment (Israel et al., 2014; Kamman & Long, 2010; Smith & Israel, 2010; Washburn et al., 2012; Whitaker, 2000). Additional researchers focused on advocating for and guiding the protégé by providing psychosocial support (Israel et al., 2014; Washburn et al., 2012), and mobilizing institutional resources (gaining administrative support) (Kamman & Long, 2010). The best practices model for Nick et al. (2012) is based on a

formal academic mentoring model, in which some SETs gained access to a mentor through an informal process (the mentee and mentor relationship formed due to a reciprocated need for support (Chapman et al., 2021; Billingsley et al, 2004). One study incorporated the use of establishing clear mentorship purpose and goals (specifying time commitment); the SET who reported success with mentor/mentee relationship received weekly check-ins from their mentor (Whitaker, 2000). Additionally, studies varied in the amount of time for SETs to receive mentorship. For example, some researchers surveyed teachers who had received mentorship for at least one year (e.g., Israel et al., 2014) and other surveyed teacher who had received three years of mentorship (e.g., Kamman and Long, 2010). Jones and colleagues (2013) surveyed teachers in Michigan who received three years of mentorship while SETs in Indiana received only one year with a recommendation for receiving two years.

Identifying the Research Gaps

Based on the literature, we know that both PD and mentorship influence teacher development. However, research findings indicate differences regarding the impact of professional development (Albrecht et al., 2009; Glazerman et al., 2010) and mentorship (Lopez-Strada & Koyama, 2010; Scott & Alexander, 2019) on special education teachers' intent. Most studies have focused on separating professional development and mentorship to understand their effectiveness on teaching practices and retention (Shady et al., 2013; Washburn-Moses, 2010). These studies have led to a better understanding of the support that ECSETs need to thrive in their new roles (Billingsley et al., 2017; Smith & Israel, 2010). No studies have examined factors related to the quality and duration of PD and mentorship on ECSETs' intent.

Thus, a study including current ECSETs is needed to better understand what types of professional development and mentorship opportunities ECSETs have received, how long have

they participated in the programs, the quality of the programs based on best practices, and whether their participation in such programs is associated with their plans to stay in or leave the profession within the next year. While past research investigated the factors that contributed to special educators planning to stay or leave (Albrecht et al., 2009; Cancio et al., 2013), this study will expand knowledge about what special educators value as quality professional development and mentorship and how these potentially influence their intentions. By better understanding these aspects of professional development and mentorship, teacher preparation programs and school districts can assess their current practices and adjust as needed to address the specific needs of their special education teachers. The information received from this study has the potential to inform the development of induction programs and a plan to support ongoing mentorship for ECSETs who may benefit from such support.

Chapter 3

Methodology

In Chapter 3, I describe the methodology and procedures I used to conduct this quantitative study. This study focused on whether professional development and mentorship impact the likelihood that ECSETs plan to stay or leave the teacher workforce and if the quality and duration of these supports increase those chances. Previous literature highlights the lack of research on the quality and duration of PD and mentorship on SETs' intent (Billingsley & Bettini, 2019). Therefore, the purpose of this study is to extend previous studies (e.g., Albrecht et al., 2009) by including factors related to the quality and duration of PD and mentorship. I identified the types of professional development received by ECSETs, inquired about the amount of time spent on professional development, and the impact it has on teacher plans to remain in the teaching profession. Additionally, I examined similar factors (duration and quality) related to mentorship to understand better if one or both impact ECSETs' intent.

Research Design

The research design for this study is correlational, in which survey data were collected using Question-Pro (e.g., email for recruitment and communication). According to McMillan (2016), a correlational research design investigates relationships between two or more variables. A correlational research design is the best way to answer the proposed research questions. I identified relationships between the independent and dependent variables and described the data using descriptive statistics. Using an internet-based questionnaire (survey) has benefits and disadvantages. Internet-based questionnaires save money and time due to little or no cost, they are equally reliable compared to paper-and-pencil questionnaires; they can access distant populations; and respondents are likely to have comfortability answering questions due to the

familiarity of online surveys (McMillan, 2016). Although there are several advantages of using internet-based questionnaires, disadvantages include low response rates and the possibility of participants giving biased responses. To address participants' reluctance to respond, researchers recommend establishing trust by decreasing costs (e.g., minimizing requests for sensitive information) and increasing benefits (e.g., sharing how the results will be used) (Dillman et al., 2014). For this study, I used an internet-based questionnaire, specifically sending email-based communication to reach a diverse and distant population of ECSETs across the state of Virginia.

Research Questions

The following questions guided this research study:

Q1: What is the relationship between the type of professional development received and the likelihood that Early Career Special Education Teachers (ECSETs) remain in the teacher workforce?

a. How does the duration of professional development impact ECSET's intent to leave the teacher workforce?
b. How does the quality of professional development impact ECSET's intent to leave the teacher workforce?
c. How does the duration and quality of professional development impact ECSET's intent to leave the teacher workforce?

Q2: What is the relationship between ECSETs who receive mentorship and their intentions to remain in the special education teacher workforce?

a. How does the duration of mentorship impact ECSET's intent to leave the teacher workforce?

b. How does the quality of mentorship impact ECSET's intent to leave the teacher workforce?
c. How does the duration and quality of mentorship impact ECSET's intent to leave in the teacher workforce?

Q3: How does receiving both mentorship AND professional development relate to ECSET's intention to leave the teacher workforce compared to receiving only one of the components?

Variables

Independent Variables

The independent variables in this study are duration, quality, mentorship, and type of professional development. The quality of professional development and mentorship will be examined based on whether ECSETs report if they participated in or received professional development and mentorship based on the conceptual frameworks offered by Desimone (2009) and Nick et al. (2012). Additionally, participants had a choice to share demographics and information regarding their participation in specific activities related to professional development or mentorship.

There are three categorical variables (quality, mentorship, and type of professional development) and one continuous variable (duration). I aimed to gain a better understanding of how one or more of these variables related to ECSETs' intent to leave the teaching profession.

Dependent Variable

The dependent variable in this study is early career special educators' intent to stay or leave the teaching profession within two years. Special educators' intent is a categorical variable in which the prospective special educator responded to dichotomous questions and multiple-

choice prompts. The SPED Professional Development and Mentorship survey (see Appendix A) item states, “Are you considering leaving the teaching profession within the next year?” The participant selected (1) yes or (2) no.

Participants

The sample size for this study is determined by recommendations from educational researchers for correlational research design. “Most researchers have rules of thumb in their studies, such as having at least 30 participants for correlational research and at least 15 participants in each group for experimental research. However, in many educational studies conducted in the field, higher numbers of individuals are needed” (McMillan, 2016, p.132). After conducting the power analysis, a minimum of 45 participants were needed for the study.

To participate in the study, participants were current SETs with at least one year of teaching experience, and no more than five years of experience, who provide special education support services for students with disabilities. The ECSETs could serve students in any grade level (PK – 12) and provide instruction in one or more educational settings (e.g., self-contained, collaborative/general education). The exclusion criteria for participating in this study were: (a) SETs with less than one year of experience, (b) SETs with more than five years of experience, (c) SETs who have one or more years of experience and are now serving as a general education teacher. SETs who transitioned into a general education teacher role were not considered for this study because the focus is on retaining ECSETs in the special education teacher workforce.

I used a convenience sample/non-probability convenience sample: participants who met the inclusion criteria were selected on the basis of availability (Creswell & Creswell, 2017; McMillan, 2016). The benefits of using a convenience sample are (a) that it involves low cost, (b) is less time consuming, (c) is easy to administer, (d) encourages high participation rate, and

(e) has potential for generalization to similar individuals (McMillan, 2016). Although there are several positive factors associated with using a convenience sample; there may be challenges with generalizing the data to other individuals, the population may be less representative of the identified population, and the results will be highly dependent on the characteristics of the sample (McMillan, 2016). Despite the potential disadvantages of using a convenience sample due to the alarming attrition rates, I recruited ECSETs who were readily available.

Recruitment

An initial email was sent to graduate programs from various offices at VCU School of Education, personnel from organizations such as the Virginia Council for Exceptional Children, and school district liaisons with direct connections to ECSETs. Additionally, I shared recruitment emails with former colleagues within the public school system and peers who have known ECSET associations. The link was shared on social media platforms, Facebook and Twitter, now known as "X," to reach ECSETs in various localities across the state of Virginia for increased participation. The email and online posts provided information about eligibility requirements and steps for participating in the study. The participants had two weeks from the initial notification to complete the survey. A follow-up email was sent the following week after the initial invitation reminding participants of the due date. Due to a low response rate, the deadline was extended one more week, sending a third email inviting participants to complete the survey. The survey was live for two months, based on the response and completion rate. After the final deadline passed, the data analysis process began.

Instrumentation

To collect data, I used the SPED Professional Development and Mentorship Survey (Appendix A). I created the survey by aligning questions with current literature and best

practices for professional development and mentorship (Billingsley & Bettini, 2019; Desimone, 2009; Desimone & Garet, 2015; Nick et al., 2012). The survey included 54 questions divided into four sections: (a) demographic information, (b) professional development, (c) mentorship, and (d) special educator intent (see Figures 1 and 3). The demographic sections gathered information regarding the participant's race/ethnicity, grade level, and current instructional setting (e.g., self-contained). The professional development and mentorship section includes questions that align with each conceptual framework's core features. For example, to understand an ECSETs' collective participation during professional development, the survey included the following item: "I participated in professional development with groups of teachers from the same grade, subject, or school." Respondents also answered direct questions that required them to type responses to a series of statements based on a Likert scale [1(Strongly disagree) to 5(Strongly agree)].

Expert Reviewers

Since I created the SPED Professional Development and Mentorship survey based on the current literature, four individuals were contacted to serve as expert reviewers. Three expert reviewers are current special education researchers, and one expert reviewer is an educational researcher with expertise in instrument development. An expert review was conducted, and feedback was used to identify needed formatting, language, and clarity changes. The recommendations included: item addition, "I feel a strong connection with my mentor.;" question layout revisions, for example, separating the acknowledgment statement into two questions. "I am a current special education teacher," [Yes or No]; and "I have been teaching in the classroom for a minimum of one academic school year with no more than five years of teaching

experience," [Yes or No]. After reviewing all recommendations and revision suggestions, I revised the survey accordingly.

Pilot Study

After updating the SPED Professional Development and Mentorship survey based on expert reviewer suggestions, I conducted a pilot test. A pilot test was used to establish content validity and receive additional feedback on formatting, language, and clarity of instruction. A total of five participants completed the SPED Professional Development survey and provided feedback about the process. Each participant was invited to an optional group discussion, only one person agreed to participate in the discussion. Based on the written and verbal feedback, on average, participants completed the survey between 10 – 15 minutes. Overall, participants shared that the questions presented were not challenging, QuestionPro is user-friendly, and the answer choices were appropriate. One participant shared that they were assigned two mentors and deciding which mentoring experience to reflect on was a challenge when completing the survey. When asking participants, "Can you think of any additional questions that you would ask on this survey?" Participants shared the following questions:

1. "How can special education improve to retain teachers? Or improve parental support?
2. How long was the mentor in the program?

Although the above questions were suggested as additions, they were not added to the questionnaire. The questions were considered when assessing the data and implications for future research. One question was omitted because it appeared twice (i.e., "There was a question about how a mentor helped establish professional relationships, but it appeared twice"). After

reviewing all suggestions from the pilot testing, I revised the survey before disseminating to prospective participants.

Data Collection

Data collection began after receiving approval from the Virginia Commonwealth University (VCU) Institutional Review Board (IRB). The survey was disseminated electronically using QuestionPro, a VCU approved and password-protected data collection system. To help maintain the confidentiality of participants, I did not collect any identifying information. However, IP addresses were collected to ensure that the same person did not take the SPED Professional Development and Mentorship survey more than once.

Data Analyses

The first step in the data analysis process included cleaning the data and accounting for missing values. After the data were clean and all values were accounted for, the data were transferred to the open-source statistical analysis program known as R. The summary function within R was used to obtain descriptive statistics for the independent and dependent variables. The descriptive statistics provided a summary of the items such as the number of participants, demographic information, and total response rate. To answer the research questions (shown below), I used logistic regression and interpreted the results using odds ratios. The odds ratio shares the odds of an outcome (e.g., teacher plans to stay) given a particular experience (e.g., professional development) compared to not receiving professional development.

Q1: What is the relationship between the type of professional development received and the likelihood that Early Career Special Education Teachers (ECSETs) remain in the teacher workforce?

a. How does the duration of professional development impact ECSET's intent to leave the teacher workforce?
b. How does the quality of professional development impact ECSET's intent to leave the teacher workforce?
c. How does the duration and quality of professional development impact ECSET's intent to leave the teacher workforce?

Q2: What is the relationship between ECSETs who receive mentorship and their intentions to remain in the special education teacher workforce?

a. How does the duration of mentorship impact ECSET's intent to leave the teacher workforce?
b. How does the quality of mentorship impact ECSET's intent to leave the teacher workforce?
c. How does the duration and quality of mentorship impact ECSET's intent to leave in the teacher workforce?

Q3: How does receiving both mentorship AND professional development relate to ECSET's intention to leave the teacher workforce compared to receiving only one of the components?

Missing Data

Participants were encouraged to answer all questions; however, if participants chose not to answer demographic questions, I developed a coding system to ensure that the omission of their data did not affect the results. For example, if an individual preferred not to answer questions regarding demographics (e.g., race), the response was coded using "0," not counting against them for not answering the questions. However, if participants did not answer questions

related to professional development and mentorship, then their data were not used for the final analysis.

Conclusion

Chapter 3 provided an explanation of the methodology, research questions, and the description of the participants. You learned more about instrumentation, including how the SPED Professional Development and Mentorship survey was created. I provided details about data collection and the analysis process. Chapter 4 includes the results from the study.

Chapter 4

Findings

The purpose of this study was to examine the extent to which participating in professional development and receiving mentorship predicted the likelihood of ECSETs remaining in the teacher workforce. Chapter 4 includes the results from the data analysis conducted based on the methodological process outlined in Chapter 3. The research questions guide this study by asking ECSETs to identify the types of professional development they received, report if they received mentorship opportunities, and whether the quality and duration of these supports contribute to whether they intend to stay in the teacher workforce. The research questions included the following:

Q1: What is the relationship between the type of professional development received and the likelihood that Early Career Special Education Teachers (ECSETs) remain in the teacher workforce?

a. How does the duration of professional development impact ECSET's intent to leave the teacher workforce?
b. How does the quality of professional development impact ECSET's intent to leave the teacher workforce?
c. How does the duration and quality of professional development impact ECSET's intent to leave the teacher workforce?

Q2: What is the relationship between ECSETs who receive mentorship and their intentions to remain in the special education teacher workforce?

a. How does the duration of mentorship impact ECSET's intent to leave the teacher workforce?

b. How does the quality of mentorship impact ECSET's intent to leave the teacher workforce?
c. How does the duration and quality of mentorship impact ECSET's intent to leave in the teacher workforce?

Q3: How does receiving both mentorship AND professional development relate to ECSET's intention to leave the teacher workforce compared to receiving only one of the components?

Participants

The SPED Mentorship and Professional Development Survey was sent to ECSETs who teach in elementary, middle, and high schools across 41 school divisions in Virginia. Any teacher identified as a special education teacher on their school's website was sent a personal email inviting them to participate in the study. A total of 527 individuals viewed the survey; 162 participants began the survey. However, 62 participants dropped out, resulting in the completion of 100 surveys (61.73% completion rate). The respondents who identified as ECSETs in Virginia (n = 51) were included in the final analysis. Special educators who did not meet the criteria due to having more than five years of teaching experience (n = 48) or teaching in another state (n = 1) were excluded from the study.

Demographics

The study included respondents primarily teaching in an inclusion general education classroom (n = 30, 58.8%). The ECSETs had the option to report if they worked with students from multiple disability categories. Most of the ECSETs reported working with students categorized from the following disability categories: Specific Learning Disability (n = 36, 70.6%), Autism (n = 31, 60.8%), and Other Health Impairments (n = 31, 60.8%). ECSETs

reported working with students from 12 of the 13 IDEA disability categories. However, no ECSETs reported experience working with students in the category of deaf blindness. Participant characteristic results are displayed in Table 1.

Table 1

Teacher Demographic Data

Characteristic	n	Percentage (%)
Gender		
Female	48	94.1
Male	3	5.8
Grade Level		
Elementary (K-5)	23	31.4
Middle (6 – 8)	14	27.5
High School (9 – 12)	12	23.5
Other	2	3.9
Highest Degree		
Bachelor's Degree	16	31.4
Master's Degree	33	64.7
Doctoral Degree	1	1.9
Professional Certificate in K-12 Curriculum	1	1.9
School Setting		
Urban	26	51.0
Rural	18	35.3
Suburban	7	13.7
Classroom Setting		
General education classroom (inclusion/collaborative setting)	30	58.8
Self-contained special education classroom	11	21.6
Resource classroom	6	11.8
Other	4	7.8

The data in Table 1 reveal that the majority of participants were females (n = 48, 94.1%) who taught elementary (n = 23, 31.4%) within an urban school setting (n = 26, 51%). ECSETs who selected "Other" for grade levels reported teaching in elementary (PreK – 4) and middle (5 – 7). Overall, the ECSETs had varying degrees of education, with most reporting obtaining a

Master's degree (n =33, 64.7%) compared to other degree or certificate types: Bachelor (n = 16, 31.4%), Doctoral (n = 1, 1.9%), and Professional Certificate in K-12 Curriculum (n = 1).

Professional Development Participation

Table 2

Professional Development Participation

Category	n	Percentage
Reason for PD Attendance		
Mandatory (required by administration/school district)	44	86.3
Self-selected (attended based on content presented)	22	43.1
Continuing education credit for licensure renewal	22	43.1
Types of Professional Development		
Listen to a lecture	46	90.2
Observed expert teacher(s) demonstrate a lesson or unit	13	25.5
Others observed me while I demonstrated a lesson or Unit	11	21.6
Received feedback on my teaching and participated in Discussion	17	33.3
Reviewed student work in the topic areas covered	5	9.8
Led a discussion on a topic related to special education	8	15.7
PD Duration		
1 - 5 hours	25	49.0
5 -10 hours	7	13.7
10 - 15 hours	5	9.8
15 - 20 hours	4	7.8
More than 20 hours	9	17.6
Other	1	2.0

Note. For the categories “Reason for PD attendance” and “PD type,” ECSETs could select more than one option.

Table 2 displays participant responses related to reasons ECSETs attended professional development and how long they participated. Data were analyzed using frequencies and

percentages. Participants had an opportunity to select multiple reasons (e.g., mandatory) for attending professional development and types of professional development activities (e.g., listening to a lecture). Results indicated that the majority of ECSETs participated in professional development due to administrator/school district mandates (n = 44, 86.3%). Participants reported the other reasons as having the option to self-select the PD content (n = 22, 43.1%) and obtain continuing education for licensure renewal (n = 22, 43.1%). ECSETs reported attending PDs where they listened to lectures (46, 90.2%) with few reporting the option to review student work in the topic areas covered (n = 5, 9.8%). Overall, almost half of the ECSETs reported (n = 25, 49%) having at least 1 – 5 hours of professional development. Additionally, the majority of ECSETs intended to stay (n = 36, 70.6%) compared to those who planned to leave (n = 15, 29.4%)

Table 3

Mentorship Participation

Category	n	Percentage
Mentorship Paring		
Paired by administrator	36	70.6
Paired based on my individual selection of mentor	4	7.8
Paired based on mentor selection of mentee	5	9.8
Other	6	11.8
Mentorship Duration		
1 - 5 hours	20	39.2
5 -10 hours	7	13.7
10 - 15 hours	5	9.8
15 - 20 hours	5	9.8
More than 20 hours	8	15.7
Other	6	11.8

Note. ECSETs reported how they were paired with a mentor and the duration of mentorship.

Findings Related to Research Questions

Research Question 1

Logistic regression was used to examine the extent to which ECSETs' plan to leave the teacher workforce differed by the type of professional development received (see Table 4). For ECSETs, the odds of planning to leave were not associated with the type of professional development received (e.g., listening to a lecture). Good model fit was evidenced by non-statistically significant results on the Hosmer and Lemeshow test, $X^2 = 1.32$, df = 5, $p = 0.933$.

Table 4

Association of Types of Professional Development on ECSETs' Intent to Leave

Factor	OR	SE	z	*p*	95% CI	
					LL	UL
Intercept	5.057	1.223	1.325	.185	.599	112.389
Listened to lecture	0.681	1.220	-0.314	.753	.031	5.833
Observed expert teacher(s) demonstrate a lesson or unit	0.583	0.813	-0.664	.507	.117	3.095
Others observed you while you demonstrated a lesson or unit	0.525	1.133	-0.568	.570	.049	4.991
Received feedback on my teaching and participated in Discussion	1.438	0.924	0.393	.694	.265	11.621
Reviewed student work on the topic area covered	1.586	1.365	0.338	.736	.127	31.444
Led a discussion on a topic related to special education	0.245	0.947	-1.486	.137	.034	1.545

Note. $N = 51$. I examined the impact of the types of professional development on ECSETs' intent using Logistic Regression.

Research Question 1a: Duration of PD

Logistic regression was used to determine the extent to which ECSETs' plan to leave the teacher workforce differed by the duration of professional development received (see Table 4.1). The intercept is significant, (O.R. = 3.17, p = .014). For ECSETs who did not spend any time in professional development, the odds of planning to leave are 217% lower when compared to ECSETs who participated. The predictor, more than 20 hours of professional development, is significant (O.R. = 0.16, $p < .05$). For ECSETs who participated in professional development for more than 20 hours, the odds of planning to leave are 85% lower than ECSETs who participated in 1- 5 hours of PD. Good model fit was evidenced by non-statistically significant results on the Hosmer and Lemeshow test, X^2 =1.1752e-07, df = 2, p = .999. These results suggest that the focal predictor, duration, reliably distinguished between ECSETs who plan to stay or leave the teacher workforce. The model demonstrated higher sensitivity (60%) than specificity (8.3%).

Table 4.1

Association of Professional Development Duration on ECSETs' Intent to Leave

Factor	OR	SE	z	*p*	95% CI	
					LL	UL
Intercept	3.167	0.468	2.461	.014*	1.339	8.695
5 -10 hours	0.789	0.959	-0.247	.805	0.128	6.502
10 -15 hours	1.263	1.212	0.193	.847	0.147	27.279
15 - 20 hours	1.344	1978.090	0.008	.993	N/A	N/A
More than 20 hours	0.158	0.848	-2.176	.023*	0.026	0.782
Other	1.344	3956.180	0.004	.997	N/A	N/A

Note. N = 51. Examined the impact of the type of professional development on ECSETs' intent. Confidence intervals could not be estimated for 10 – 15 hours or Other due to small cell sizes.

Research Question 1b: Quality of PD

Logistic regression was used to examine whether the quality of professional development impacted ECSETs' plan to leave the teacher workforce (see Table 4.2). For ECSETs who participated in high-quality professional development, the odds of planning to leave are 57% lower than ECSETs who do not receive high-quality professional development. Good model fit was evidenced by non-statistically significant results on the Hosmer and Lemeshow test, X^2 = 2.08 df = 2, p = 0.354. These results suggest that the focal predictor, PD quality, reliably distinguished between ECSETs who plan to stay or leave the special education teacher workforce. The model demonstrated higher sensitivity (60%) than specificity (13.9%).

Table 4.2

Association of Professional Development Quality on ECSETs' Intent to Leave

Factor	OR	SE	z	*p*	95% CI	
					LL	UL
Intercept	24.437	1.024	3.120	.002**	3.897	230.025
PD Quality	0.430	0.336	-2.508	.012*	0.210	0.799

Note. N = 51. Examined the impact of professional development quality on ECSETs' intent.

Research Question 1c: Duration and Quality of PD

Logistic regression was used to examine whether the duration and quality of professional development impacted ECSETs' plan to leave the teacher workforce (see Table 4.3 below). For ECSETs who participated in professional development for more than 20 hours, the odds of planning to leave are 99% lower than ECSETs who participated in 1 – 5 hours of PD (O.R. = 0.01, p = 0.005). Additionally, the predictor, PD quality, is significant (O.R. = 0.117, p = 0.003). For ECSETs who participated in high-quality professional development over time, the odds of planning to leave are 88% lower than ECSETs who do not receive high-quality professional

development over an extended period of time. Good model fit was evidenced by non-statistically significant results on the Hosmer and Lemeshow test, $X^2 = 1.33$ df = 6, $p = 0.970$. These results suggest that the focal predictors, duration and PD quality reliably distinguished between ECSETs who plan to stay or leave the teacher workforce. The model demonstrated higher sensitivity (26.7%) than specificity (16.7%).

Table 4.3

Association of Professional Development Duration and Quality on ECSETs' Intent to Leave

Factor	OR	SE	z	*p*	95% CI	
					LL	UL
Intercept	4370.794	2.813	2.980	.003*	58.042	6.626e06
5 -10 hours	0.162	1.298	-1.400	.161	0.010	2.046
10 -15 hours	0.538	1.627	-0.381	.703	0.009	18.357
15 - 20 hours	1.703e08	2422.466	0.008	.994	N/A	N/A
More than 20 hours	0.008	1.740	-2.796	.005*	9.986e-05	0.127
Other	1.670e07	6522.639	0.003	.998	N/A	N/A
PD Quality	0.117	0.733	-2.933	.003*	0.018	0.373

Note. N = 51. Examined the impact of duration and quality on ECSETs' intent.

Research Question 2: Participation in Mentorship

Logistic regression was used to determine if the extent to which ECSETs plan to leave the teacher workforce differed by participating in a mentorship program (see Table 5). Compared to ECSETs who do not participate in a mentoring program, participating in a mentorship program did not have a relationship on whether they planned to stay or leave the teacher workforce. The Hosmer and Lemeshow test did not show evidence of good model fit for this model. Overall, the model was perfect at predicting ESCETs who would leave (100%) but did not correctly predict that anyone would stay (0%).

Table 5

Association of Participating in Mentorship Program on ECSETs' Intent to Leave

Factors	OR	SE	z	*p*	95% CI	
					LL	UL
Intercept	2.154	0.336	2.286	.0222	1.139	4.297
Mentorship Participation	1.857	0.859	0.721	.4711	0.395	13.461

Note. N = 51. Examined the impact of participating in a mentorship program on ECSETs' intent.

Research Question 2a: Duration of Mentorship

Logistic regression was used to determine the extent to which ECSETs plan to leave the teacher workforce differed by the duration of mentorship received (see Table 5.). The predictor, more than 20 hours of mentorship received, is significant (O.R. = 0.07, p = 0.009). For ECSETs who receive mentorship of more than 20 hours, the odds of planning to leave are 93% lower than ECSETs who receive 1 – 5 hours of mentorship. Results of the Hosmer and Lemeshow test did not produce interpretable results, (X^2 =NaN, df = 4, p = N/A), but more than likely, the fit of this model was not strong. The model demonstrated higher sensitivity (64.3%) than specificity (8.3%).

Table 5.1

Association of Mentorship Duration on ECSETs' Intent to Leave

Factor	OR	SE	z	*p*	95% CI	
					LL	UL
Intercept	8.9997	0.7453	2.948	.003*	2.599	56.625
5 -10 hours	0.148	1.067	-1.789	.074	0.015	1.163
10 -15 hours	0.444	1.344	-0.604	.546	0.332	10.929
15 - 20 hours	0.444	1.344	-0.604	.546	0.332	10.929

More than 20 hours	0.067	1.044	-2.595	.009**	0.007	0.452
Other	0.167	1.179	-1.520	.128	0.014	1.807

Note. N = 51. Examined the relationship between of the amount of mentorship received and ECSETs' intent to leave.

Research Question 2b: Quality of Mentorship

Logistic regression was used to determine the extent to which ECSETs plan to leave the teacher workforce based on the quality of mentorship received (see Table .2 below). The predictor, mentorship quality is not significant (O.R. = 0.72, p = .158). Good model fit was evidenced by non-statistically significant results on the Hosmer and Lemeshow test, X^2 = 0.15, df = 1, p = 0.696. Overall, the model was perfect at predicting ESCETs who would leave (100%) but did not correctly predict that anyone would stay (0%).

Table 5.2

Association of Mentorship Quality on ECSETs' Intent to Leave

Factor	OR	SE	z	*p*	95% CI	
					LL	UL
Intercept	5.648	0.6637	2.608	.009**	1.640	22.871
Mentorship Quality	0.720	0.2323	-1.414	.158	0.449	1.136

Note. N = 51. Examined the impact of the type of professional development on ECSETs' intent.

Research Question 2c: Duration and Quality of Mentorship

Logistic regression was used to examine whether the duration and quality of receiving mentorship impacted ECSETs' plan to leave the teacher workforce (see Table 5.3). The predictor, more than 20 hours of mentorship, is significant (O.R. = 0.04, p = .01). For ECSETs who received mentorship for more than 20 hours, the odds of planning to leave are 96% lower than

ECSETs who do not receive more than 20 hours of mentorship. The predictor, mentorship quality, is not significant (O.R. = 0.54, p > .05). For ECSETs who receive mentorship over time, the odds of planning to leave in the field are not influenced by the quality of mentorship. Good model fit was evidenced by non-statistically significant results on the Hosmer and Lemeshow test, X^2 = 8.74, df = 7, p = 0.272. These results suggest that the focal predictor, duration, reliably distinguished between ECSETs who plan to stay or leave the teacher workforce. The model demonstrated higher sensitivity (57.1%) than specificity (8.3%).

Table 5.3

Association of Mentorship Duration and Quality on ECSETs' Intent to Leave

Factor	OR	SE	z	*p*	95% CI	
					LL	UL
Intercept	45.128	1.435	2.655	.008**	4.308	1498.933
5 -10 hours	0.187	1.113	-1.507	.132	0.017	1.613
10 -15 hours	0.215	1.508	-1.020	.308	0.009	6.223
15 - 20 hours	0.215	1.508	-1.020	.308	0.009	6.223
More than 20 hours	0.038	1.213	-2.696	.007**	0.002	0.322
Other	0.455	1.332	-0.510	.610	0.033	7.475
Mentorship Quality	0.542	0.386	-1.585	.113	0.234	1.132

Note. N = 51. Examined the impact of the type of professional development on ECSETs' intent.

Research Question 3: PD and Mentorship and ECSETs Intent

Logistic regression was used to determine the extent to which ECSETs plan to leave the teacher workforce based on participating in both PD and a mentorship program (see Table 6). The predictors, mentor participation, and PD participation are not significant. For ECSETs who receive mentorship (O.R. = 1.93, p = 0.41) and participate in professional development (O.R. =

2.77, p = .99), the odds of planning to leave the teacher workforce are not impacted by these factors. The Hosmer and Lemeshow test X^2 = 1.73e-07, df = 0, p = <.001 was significant, suggesting that model fit was not strong. Overall, the model was perfect at predicting ECSETs who would leave (100%) but did not correctly predict that anyone would stay (0%).

Table 6

Association of Mentorship and Professional Development Participation on ECSETs' Intent to Leave

Factors	OR	SE	z	*p*	95% CI	
					LL	UL
Intercept	2.077	0.3376	2.165	.030*	1.093	4.156
Mentorship Participation	1.926	0.8596	0.762	.446	0.409	13.975
PD Participation	2.772	1455.3976	0.010	.992	N/A	N/A

Summary

Chapter 4 described the results of the study using logistic regressions to investigate the relationship of professional development and mentorship on ECSETs' intent. The findings of these analyses showed several statistically significant relationships between key variables and nonsignificant associations. The findings share insights about the impact of the variables on ECSETs' plan to remain in the teacher workforce within the next year. Chapter 5 discusses how these findings contribute to special education research literature. Additionally, I discuss the limitations of the study along with implications for research, policy, and practice.

Chapter 5

Discussion

This study examined the extent to which professional development and mentorship are associated with retention outcomes of ECSETs. As mentioned in the literature review, researchers have examined both professional development (e.g., Cancio et al., 2013; Shady et al., 2013) and mentorship (Chapman et al., 2021; Washburn et al., 2012) separately. Based on how researchers examined professional development and mentorship in past research, this study examined the intersection of both PD and professional development and their influence on ECSETs' intent including additional factors such as duration and quality. Current legislation (e.g., ESSA, IDEA) uses competing definitions for professional development while incorporating mentorship as an essential component of teacher preparation. Two conceptual frameworks, Desimone's (2009) "Best Practices of Professional Development" and Nick et al. (2012) "Best Practices in Academic Mentoring," were used to develop the SPED Professional Development and Mentorship Survey to understand if participating in PD and mentorship opportunities increased the likelihood that ECSETs would stay or leave the teacher workforce. Chapter 5 includes a discussion of the findings from Chapter 4, connecting them to current literature, implications of the results, limitations of the study, and recommendations for future research and practice.

Discussion of Findings and Connection to Current Literature

Research Question 1: Participation in PD

Research Question 1 asked, "What is the relationship between the type of PD received and the likelihood that ECSETs remain in the teacher workforce?" The results of the logistic regression indicated that participating in PD activities (e.g., observed expert teacher(s)

demonstrate a lesson or unit) did not have an association with whether ECSETs intended to leave the teacher workforce. Although there is limited special education literature on professional development and SET intent, the findings of this study align with previous studies (Glazerman et al., 2010; Shady et al., 2013). Quantitative results from earlier research revealed that teachers (general and special educators) did not feel more knowledgeable about inclusive practices after identifying specific PD needs and participating in PD (Shady et al., 2013). However, qualitative findings revealed that teachers found PD training beneficial and preferred it to be continuous (Shady et al., 2013). Despite the current findings, other special education literature states professional development as an avenue to improve instructional practices (McLeskey, 2011), student outcomes (McLeskey, 2011), and a way to receive training on communicating with parents and other paraprofessionals (Berry, 2012).

Research Question 1a: Duration of PD

Research Question 1a asked, "How does the duration of professional development impact ECSET's intent to stay in the teacher workforce?" The results of the logistic regression revealed that there is a significant association between the duration of PD and ECSETs' intent to leave, suggesting that for ECSETs who participate in PD for more than 20 hours, the odds of leaving the teaching workforce are lower (84%) than for ECSETs who do not participate for the same amount of time. The current finding is in alignment with one of the five core features (Duration) from Desimone's (2009) conceptual framework, the Best Practices of Professional Development. Desimone (2009) stated that duration requires that professional development be ongoing throughout the academic year and include 20 hours or more of contact time. Thus, 20 or more hours of PD has the potential to positively impact ECSETs' decision for remaining in the teacher workforce.

Research Question 1b: Quality of PD

Research Question 1b asked, "How does the quality of professional development impact ECSET's intent to stay in the teacher workforce?" The results of the logistic regression revealed that there is a significant association between PD quality and ECSETs' intent to leave, suggesting that for ECSETs' who receive quality PD, the odds of leaving the teaching workforce are lower (57%) than those who do not receive quality PD. Researchers examining factors related to working conditions and retention outcomes report that it is vital to have access to "meaningful" (quality) professional development on the district level (Albrecht et al., 2009) and recommend it to aid in minimizing unwanted frustrations caused by job-related stressors (Hester et al., 2020). In the special education literature, SETs value PD that directly relates to improving their teaching practice and addressing specific needs related to paperwork and behavioral challenges (Gehrke & McCoy, 2007). Thus, when providing PD, it is essential to assess the needs of ECSETs to tailor PD to inform their practice, meet their specific needs, and employ culturally relevant practices to meet the needs of diverse teachers (Scott et al., 2020).

Research Question 1c: Duration and Quality of PD

Research Question 1c asked, "How does the duration and quality of professional development impact ECSET's intent to leave in the teacher workforce?" The results of the logistic regression revealed that there is a significant association between the duration of PD and ECSETs' intent to leave, suggesting that ECSETs' who participate in more than 20 hours of PD, the odds of leaving the teaching workforce are lower (99%) compared to ECSETs who participate in 1 – 5 hours of PD. Similarly, PD quality and ECSETs' intent had a significant association, indicating that high-quality PD lessened (88%) the odds of leaving compared to an ECSET who did not receive quality PD. Currently, no special education studies examine the

duration and quality of professional development on ECSETs intent. Therefore, the findings are a significant contribution to special education research. It draws attention to the relationship of duration (more than 20 hours) of PD having a relationship with intent to leave. Studies in the past have emphasized that SETs require specific support when working with students with varying disabilities and when they deliver content using the general education curriculum (Berry, 2012).

Research Question 2: Participation in Mentorship

Research Question 2 asked, "What is the relationship between ECSETs who receive mentorship and their intentions to remain in the special education teacher workforce?" The results of the logistic regression indicated that participating in a mentoring program did not have an association with whether ECSETs remained in the teacher workforce. The current findings are similar to past studies examining ECSETs' intent related to mentorship (Connelly & Graham, 2009; White & Mason, 2006), suggesting that receiving mentorship did not predict intent to leave. The researchers also explored factors related to participation in student teaching (Connelly & Graham, 2009). Although White & Mason (2006) found that participation in a mentoring program had little impact on SETs' intent, qualitative data revealed that SETs benefited from the support of a mentor (e.g., completing paperwork) and suggested that the school district continue the mentoring program. Contrary to the current findings, other researchers have found that mentorship is related to teacher retention (Larkin et al., 2018) and increases overall competence and self-efficacy (Rose & Sughrue, 2020; Sutcher et al., 2016). The results of this study may not reveal similar thoughts depending on the type of mentorship received (e.g., in-person vs. e-mentoring). ECSETs in this study were also transitioning back to the classroom after the pandemic, which could have caused changes to the availability of mentorship opportunities. Additionally, ECSETs in this study may have multiple mentorship experiences to recall, and in

some instances, they could have been assigned a mentor who was not a special educator or a special educator who did not teach within their building or the same grade level(s).

Research Question 2a: Duration of Mentorship

Research Question 2a asked, "How does the duration of mentorship impact ECSET's intent to stay in the teacher workforce?" The results of the logistic regression indicated that there is a significant association between the duration of mentorship and ECSETs' intent to leave, suggesting that ECSETs who receive more than 20 hours of mentorship, the odds of leaving the teaching workforce are lower (93%) than a ECSETs who do not receive mentorship. There are few to no studies related to the amount of mentorship required to influence SETs' intent. However, some studies have found that ECSETs who receive one to three years of mentorship improve their instructional practice (Israel et al., 2014; Kamman & Long, 2010). One study found that ECSETs who had weekly check-ins with their mentor reported that they were more likely to continue teaching the following year (Whitaker, 2000). The findings suggest that duration and connecting with a mentor over time have an impact on intent.

Research Question 2b: Quality of Mentorship

Research Question 2b asked, "How does the quality of mentorship impact ECSET's intent to leave in the teacher workforce?" The results of the logistic regression revealed that the quality of mentorship received did not have an association with whether ECSETs remained in the teacher workforce. Although no studies found focused on the quality of mentorship, McCoy et al. (2013) found that novice teachers who reported receiving mentorship, did not have an association with whether they stayed or left the teaching profession. In other studies, researchers identified a lack of administrator and mentor support as a reason ECSETs were leaving the field; however, one teacher who received hands-on support from their mentor, reported they would

remain in the field (Schlichte et al., 2005). Additionally, researchers found that SETs were more likely to stay in the field when they were individualized (quality) and met their specific needs (Jones et al., 2013).

Research Question 2c: Duration and Quality of Mentorship

Research Question 2c asked, "How does the duration and quality of mentorship impact ECSET's intent to stay in the teacher workforce?" The results of the logistic regression revealed that there is a significant association between the duration of mentorship and ECSETs' intent to leave, suggesting that ECSETs' who participate in more than 20 hours of mentorship, the odds of leaving the teaching workforce are lower (96%) compared to ECSETs who do not receive mentorship. However, the quality of mentorship did not have an association with whether ECSETs intended to leave the teacher workforce. Since this is the first known study that examines the relationship of duration and quality of mentorship on special educator intent, there are no studies to compare the results. This extends the literature by looking at both predictors allowing a new conversation about the correlation between the amount of time spent with receiving mentorship.

Research Question 3: PD and Mentorship and ECSETs' Intent

Research Question 3 asked, "How does receiving both mentorship AND professional development relate to ECSET's intention to stay in the teacher workforce compared to receiving only one of the components?" The results of the logistic regression indicated that participating in PD activities (e.g., observed expert teacher(s) demonstrate a lesson or unit) and mentorship did not have an association with whether ECSETs intended to leave the teacher workforce. Overall, the research on PD and Mentorship varies depending on the research type (quantitative vs qualitative) and factors related to intent (e.g., working conditions) (Billingsley & Bettini, 2019).

Implications for Practice

Retaining quality special education teachers continues to be a concern in the SET workforce (Mason-Williams, 2015). Despite the high rates of ECSETs leaving the field, it is vital to proactively identify relevant and timely support (Foote et al., 2011). The results of the current study showed a relationship between receiving ongoing support (more than 20 hours of professional development and mentorship) and ECSETs' intent to leave the teacher workforce. Additionally, the quality of professional development had a significant association with ECSETs' intent. Since previous studies have not examined both factors of PD and mentorship, including factors of duration and quality, this analysis adds to the conversation on special educator's intent.

Although past studies have not examined the quality of PD, the results suggest that PD delivery and the content covered are critical aspects of the effectiveness of professional development. This finding aligns with Desimone's (2009) conceptual framework and is a quest for school districts and teacher preparation programs to conduct professional development that embeds the five core features (content focus, active learning, coherence, duration, and collective participation; Desimone, 2009). To ensure that professional learning incorporates the core features, I recommend that school districts create accountability measures to assess their performance within each core feature using evaluation data. Before planning professional development sessions, school districts can use data to drive instruction by gathering information about all teacher needs within the district to ensure that PD is relevant to their current needs (Rose & Sughrue, 2020).

It is important for school districts to collectively define "high-quality" professional development by discussing what it looks like, and sounds like, and how they may engage with

content that aligns with academics, curriculum, and student achievement. This will ensure that all school personnel responsible for PD understand the expectations for delivery and content. After defining high-quality PD, school districts must use it to guide their reflection on past data about school culture and climate to identify top concerns and support requested by teachers and support staff. To invest in the continued growth and development of ECSETs, PD must align with evidence-based practices and focus on their individual needs. Often the value of PD is assessed based on relevance and how it fosters change in instruction or practice, which leads to improved student learning (Desimone, 2009). If new curricula or programs (reading and math) are implemented, school districts should give all teachers the proper training and resources to implement instruction with fidelity. ECSETs may require ongoing support from a mentor to debrief about new strategies and discuss changes. Although there was not a significant finding for participation in a mentorship program, receiving more than 20 hours of mentorship was significant. Based on this finding, the duration of mentorship is a significant factor for school districts to consider which aligns with what researchers found when mentorship was received for one (Israel et al, 2014) or three years (Kamman & Long, 2010). Therefore, creating a scope and sequence of a one to three-year plan for mentorship would provide a roadmap of how teacher preparation programs and school districts can support the transition process for pre-service SETs and continue to train them as they become teachers of record. The scope and sequence should include best practices for mentorship (Nick et al., 2012). For example, during the first year, ECSETs could participate in an orientation to special education. The orientation would include an introduction to the role of SET, including foundational training on how to manage a special education caseload, building relationships with parents and community, and an introduction to any district-wide resources and online systems. Additionally, the orientation could include

opportunities for ECSETs to be appropriately socialized in the school community. ECSETs should be treated as a teacher who specializes in special education law and serves as an active contributor to the classroom setting by delivering specialized instruction and increasing access to the general curriculum for all, especially students with disabilities. The second year and third years of mentorship could include more PD on data collection and management to drive instruction and ways to assess student achievement data. Additionally, the ECSETs' application of evidenced-based practices will be assessed as they receive support from a mentor, not as a punitive measure, but to increase their knowledge and understanding by providing feedback on the use of strategies. The PD and mentorship could include career mapping to support ECSETs in achieving their individual goals as SETs (e.g., leadership roles, facilitating PD, serving as a mentor). The one-to-three-year plan could then serve as a guide for using accountability measures to assess what ECSETs have received and in what areas they may continue to need additional support. It is highly recommended that the administrators play an active role in oversight in assessing accountability in combination with the mentor providing support on an ongoing basis. The mentor will embody the best practices shared by Nick et al. (2012) such as helping the ECSETs mobilize institutional support by gaining administrative support. This can include regular check-ins with the principal about the progress of the ECSETs and supporting the ECSETs by ensuring that they have time for lesson planning and collaborating with general education teachers if they are in a collaborative setting. Correa and Wagner (2011) shed light on the invaluable role principals play in supporting the mentor/mentee dyad during the induction and mentorship process by creating a positive school environment that help novice teachers meet the diverse needs of students.

Teacher preparation programs can establish relationships with pre-service special education teachers and maintain relationships as they transition into the workplace. They can do this by leading professional development training at local schools and volunteering to share their expertise to continue to have touch points with students from their program. Additionally, they can prepare ECSETs to understand what makes quality PD and share how they can advocate for their needs.

In Virginia, the Virginia Department of Education is the administrative agency that partners with school divisions to support and improve teaching and learning. The Office of School Quality is implementing the new Virginia Support Framework. This framework contains four domains: academic support, professional learning support, staffing support, and school climate support. The Professional Learning support includes quick takes where school leaders receive professional learning on creating a culture of continuous improvement within the school and districts. The data collected from this office can provide baseline data for current student and teacher needs to ensure that professional development is not a one-size-fits-all model but tailored to the specific needs of the teachers.

Implications for Policy

Policies such as the Every Student Succeeds Act of 2015 call attention to the need for professional development to be a "set of activities" happening on a continuous basis. The definition provides the criteria that it must not be a stand-alone, one-day, or short-term workshop. The results of this study confirm the value of receiving ongoing PD as it relates to ECSETs' intent. Therefore, school districts can collect data to assess the effectiveness of professional development and its impact on teacher retention outcomes. The data collected can influence policy by showing evidence of PD effectiveness on teacher outcomes, which can lead

to additional funding from grants (e.g., The State Personnel Development grant) and funding under the Individuals with Disabilities Education Act of 2004.

When professional development and mentorship are assessed on the local level using an accountability measure, the data can be shared with the state government. For example, the ECSETs in this study were all teachers in the state of Virginia. The Virginia Department of Education (VDOE) could analyze the data shared by school districts and disseminate the information for federal reporting to summarize the effects of receiving professional development and reporting the additional supports needed to increase the odds for ECSETs to remain in the teacher workforce. VDOE could insert questions related to PD quality and duration within a future working conditions survey to gather data that could then inform….. An alternative option could include assessing teacher needs on an annual basis or throughout the year, working in partnership with school districts across Virginia to collect sufficient data, and disaggregating the data to learn the specific support needed for ECSETs. Addressing the specific needs of ECSETs within the context they are teaching has the potential to improve student outcomes (Darling-Hammond, 2016) and teacher preparedness (Connelly & Graham, 2009).

The special education literature revealed that ECSETs often require support with understanding curriculum and writing IEPs (Hagaman & Casey, 2018) outside of the support they receive in their teacher induction program. Ensuring that district-wide PD incorporates specific training related to writing IEPs where teachers can receive hands-on experience with using student data, they collected and use the information to draft a student's IEPs in real time to receive feedback. SETs also need access to resources to perform their job responsibilities (Billingsley et al., 2017); resources can include textbooks, supplemental materials, or funding for additional training or certification to implement evidence-based intervention with fidelity.

If ECSETs participate in a due process case or help students with an alternative test (e.g., Virginia Alternate Assessment Program), they may require additional support if they did not receive training in their teacher preparation program. The Virginia Department of Education (VDOE) can also update teacher preparation regulations to more strongly emphasize areas of preparation, that then in turn, hold teacher preparation programs accountable for their curriculum. Policies passed on the federal level drive funding to support state and local efforts. As funding is given, teacher preparation programs can offer a variety of experiences through expanding course options to have exposure to different teaching methods and pedagogy that include real-world applications comparing the different types of school settings (rural, suburban, and urban). Examining how ECSETs use what they learn to improve student outcomes can inform grant funding.

In Virginia, The Standards of Quality and Compliance data collected by VDOE share current updates about Standard 5, which include details about the quality of classroom instruction and educational leadership. The 2022 -2023 report states that the school board will provide a program of high-quality professional development each year for teachers and principals. However, it does not describe what is included in the high-quality PD or how it will be evaluated. Using the data from this report to understand what professional development practices have been taught and discover what may be need for the years to come.

This study looks specifically at the impact of PD and mentorship as it relates to quality and duration. To provide additional recommendations for policy, it will be vital to further examine how both PD and mentorship are a part of the different laws and how states are interpreting the law and implementing services within school districts, recognizing that a combination of professional development and mentorship makes a difference in ECSETs'

professional journey. As shared earlier, it will be important to assess what school districts are already doing and provide additional strategies and tools for improvement.

Implications for Future Research

The study explored the association of professional development and mentorship on ECSETs' intent. It further extends the literature on the impact of professional development and mentorship on ECSETs' intent. Future research should incorporate a mixed-method design to receive narrative data about the lived experience of ECSETs. The opportunity to cross-examine quantitative and qualitative data may lead to additional findings about specific aspects of professional development outside of duration that influence ECSET intent. Additionally, more robust information related to quality can help translate how special educators perceive the support received for PD and mentorship. Exploring the factors qualitatively could lead to a framework for quality PD in special education. The research would target uncovering quality elements that special educator perceive as necessary for their PD experience. The complexity of evaluating PD is related to the varied experiences among ECSETs. Some PD experiences may be perceived as good or not so good. The challenge is evaluating "PD" altogether and generally as it relates to the role of a special educator.

As mentioned in Chapter 4, almost half of the SETs (n = 48) who completed the survey were omitted from the study due to having more than five years of experience. Therefore, using the data to conduct a comparative study to see if there are differences among these SETs related to intent could add to the conversation. Since all the SETs completed the survey around the same time, transitioning from the context of learning online during the pandemic back into learning in classrooms, it would be interesting to learn if SETs with more than five years of experience were more likely to report leaving within the next year compared to ECSETs. Learning more about the

PD and mentorship experience of the SETs with more than five years of teaching experience may share new information about their induction process that has kept them in the special education teacher workforce or why they transitioned into special education from general education. In addition to comparing the outcome to special educator with more than five years of experience, understanding the relationship of PD and mentorship under the broader category of working conditions can uncover more about the key elements of the two that leads to retention. In the literature, factors that may influence the intent to stay could include working conditions, administration, compensation, sense of culture and climate in the school (Billingsley & Bettini, 2019).

Future research can focus on how states are assessing professional development and mentorship programs specifically if there are components included from both the conceptual models from this study to support ECSETs. Recommendations for teacher preparation programs, school districts, and policy should be considered to better assess the funding needs. Additionally, researchers can examine alternative routes to licensure such as teacher residency programs. Teacher residency programs emerged in the 1960s and continue to expand as an alternative pathway program for prospective educators and combat the national teacher shortage (Guha et al., 2016). The teacher residency program is similar to that of a medical residency model where newly qualified doctors receive training under the supervision of more qualified doctors or medical specialists. Therefore, teachers participating in a residency program receive extended training in the classroom alongside a more qualified teacher that goes beyond the expectations of a traditional student teaching requirement. If teacher preparation is grounded in a school division and the program appropriately matches ECSETs with mentor teachers, the ECSETs have the opportunity to learn the school district's process for lesson planning, writing IEPs, and

fulfilling the role and responsibility of a special educator. Research can examine if participating in a teacher residency program decreases the need for professional development or the number of years for receiving mentorship in relation to retention in special education.

Overall, this study looked at professional development and mentorship from a global perspective that did not examine the individual characteristics of PD and mentorship that contribute to ECSETs' intent. Participation, Duration, and quality were the factors that were examined to understand whether ECSETs would remain in the teacher workforce within the next year. Future research can examine individual components from the two conceptual models for best practice in PD (Desimone, 2009) and mentorship (Nick et al., 2012). Examining the individual components will lead to knowing if one or more of the characteristics influence ECSETs' intent and how embedding these characteristics in future training has the potential to improve retention outcomes. For example, future studies can examine the effectiveness of professional development on ECSETs increased teacher knowledge and skills, change in instruction, and improved student outcomes (Desimone, 2009). According to Nick et al. (2012), there is strong evidence that incorporating the best practices for mentoring programs can lead to better retention outcomes for nurses. Hence, it would be important to examine if these factors (e.g., establishing clear mentorship purpose and goals by expressing reciprocity) in fact influence ECSETs' intent in the same way. Additionally, examining the role of administrators would be equally important since past research (e.g., Cancio et al., 2013; Rose & Sughrue, 2020) identifies the value of administrator support. Future studies can consider adding administrator involvement in the mentorship process to examine if it will make a difference in the odds of ECSETs staying or leaving the teacher workforce.

Limitations

Even though this study contributes to the conversation on SET attrition, there are some notable limitations. The findings of this study are based on analysis of self-reported data. Some limitations include response and completion rate, sampling, and response bias.

Response and Completion Rate

As mentioned in Chapter 4, the number of participants that viewed (n = 527) compared to the SETs that responded (n = 162) were drastically different, which impacted the total number of ECSETs that were included in the final analysis (n = 51). Since I targeted ECSETs in Virginia and recruited based on known associations and publicly accessible information, some SETs could have viewed the criteria and did not complete the survey based on having more than the required years of experience. SETs could have received the announcement on a social media platform and realized they did not meet the criteria due to teaching in a state other than Virginia. Although internet-based questionnaires (survey) have benefits such as being equally reliable compared to paper-and-pencil questionnaires (McMillan, 2016), "web-based surveys" tend to have lower response rates due to prospective respondents overlooking the invitation when compared to paper-based surveys (Dillman, 2014). Although I met the criteria for the power analysis (n = 45), the sample size is not representative of ECSETs across Virginia or ECSETS more broadly (i.e., nationally); therefore, consider the generalizability of the findings with caution.

Sampling

The majority of the participants were recruited by publicly accessing SET contact information from the school district homepage or school website. However, some participants were recruited by personnel from professional organizations or known connections who sent e-

mails on my behalf. This is a limitation because even though I shared reminders with the contacts, I was not copied in any communication that was sent to prospective respondents. SETs receiving emails from an unknown name may be suspicious to respond or click on the link considering the increase in scams since the pandemic. Additionally, emails may have been delivered to potential respondents' spam folders since these were coming from an outside organization (VCU email).

Response Bias

According to Rosenman et al. (2011), response bias can occur if an individual offers biased estimates of self-assessed behavior. This could be a result of misunderstanding the questions or when respondents want to provide a response to "look good" in the survey although it is anonymous. ECSETs were asked to share their personal experiences related to participating in a PD and mentorship. Teachers could have been reluctant to share the truth about their experience to ensure they "represent" their school district well or not shine a bad light on their experience as a teacher. Also, some questions related to mentorship and professional development may not have related to how they were socialized into the teacher workforce depending on their teacher preparation process. Additionally, someone completing the survey may have multiple mentors or professional development opportunities that are not school-mandated, which would change how they interpret and respond to the questions.

Conclusion

Retention of qualified SETs is a national concern affecting schools across the United States (Berry, 2012). SETs are leaving the field at higher rates than general education teachers (Carver-Thomas & Darling-Hammond, 2017). The current study was conducted to identify if the duration and quality of PD and mentorship contributed to ECSETs' intent to leave the teacher

workforce. The findings of this study reveal that PD and Mentorship alone do not influence ECSETs' intent to leave, but there is a correlation. ECSETs who receive high-quality PD for more than 20 hours have lower odds of planning to leave the field, similar to ECSETs who receive more than 20 hours of mentorship. The results of this study can guide the partnerships between teacher preparation programs and school districts on how to support ECSETs with their transition into the workplace by providing relevant and timely PD to meet their specific needs to assist them in understanding their roles and responsibilities as they deal with the nuances of a new role. Thus, the findings of this study suggest that ECSETs who participate in consistent "quality PD" throughout the academic year have the potential to lower the odds of them planning to leave the teacher workforce, which has implications on minimizing special educator attrition rates.

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Appendix A

SPED Professional Development and Mentorship Survey

Introduction

You are invited to complete The SPED Mentorship and Professional Development Survey. The following survey is intended to gather data about professional development and mentorship opportunities that you received as a special education teacher. For the questions below, please consider how your participation in one or both activities contribute to your intent to stay or leave the teaching profession, and whether you perceive a change in your instructional practices and improvements in student learning. As a reminder, your participation in this study is strictly voluntary. Your responses are confidential and anonymous. No information will be linked to you. The researcher will not collect any personal identifiable information connecting you to your response. Question Pro collects your IP address to ensure a participant takes the survey only once, but your IP address is not provided to the researcher. Should you choose to begin this survey, you can stop at any time. Thank you in advance for your participation. If you have any questions or comments, please contact me at powellcs@vcu.edu. At this time, please print or screenshot the consent/information page in case you want to save my email address to follow up later. By continuing this survey, you are consenting to participate in the study. Please start with the survey now by clicking on the Continue button below.

Demographics

1. I am a current special education teacher in Virginia.
   - Yes
   - No

2. I have been teaching in the classroom for a minimum of one academic school year with no more than five years of teaching experience.
   - Yes
   - No

3. Gender
   - Female
   - Male
   - Non-Binary
   - Prefer not to answer

4. How many years have you been teaching?
   - One year
   - Two years
   - Three years
   - Four years
   - Five years

- More than five years

5. What is your highest degree obtained?
- Bachelors Degree
- Masters Degree
- Doctoral Degree
- Professional Certificate in K-12 Curriculum
  - Other

6. Which best describes the classroom setting for your teaching assignment?
- General education classroom (inclusion or collaborative setting)
- Self-Contained special education classroom
- Resource classroom (students receive “pull-out” services)
  - Other

7. Which best describes the disabilities of the students who you teach? Select all that apply.
- Autism
- Deaf-blindness
- Deafness
- Emotional Disturbance
- Hearing Impairment
- Intellectual Disability
- Multiple Disabilities
- Orthopedic impairment
- Other health impairments
- Specific learning disability
- Speech or language impairment
- Traumatic brain injury
  - Visual impairment including blindness

8. What is your race?
- Hispanic or Latino
- American Indian or Alaska Native
- Asian
- Black or African American
- Native Hawaiian or Other Pacific Islander
- Caucasian or White
- Multiracial
- Other
  - Prefer not to say

9. Which best describes your school setting?
- Urban
- Rural
- Suburban
  - Other (describe):

10. Which grade level band do you work with the most in your daily teaching?
- Elementary (K- 5)
- Middle (6 – 8)
- High (9 – 12)
- Other

11. Have you participated in professional development activities and/or workshops?
- Yes
- No

12. If yes, which best describes the reason you attended professional development activities? (Select all that apply)
    - Mandatory (required by administration/school district)
    - Self-selected (attended based on content presented)
    - Obtained continuing education credit for licensure renewal

13. Have you participated in a mentorship program?
    - Yes
    - No

14. If yes, which best describes how you were paired with a mentor? (Select all that apply)
    - Paired by administrator or school district
    - Paired based on your individual selection of mentor
    - Paired based on mentor selection of mentee
    - Other _____

Professional Development

15. I received professional development focused on special education instructional practices (e.g., writing lesson plans, providing differentiated instruction).
    - Strongly agree
    - Agree
    - Neutral
    - Disagree
    - Strongly disagree

16. The professional development I received focused on managing special education roles and responsibilities (e.g., writing IEPs, managing your caseload, connecting with parents).
    - Strongly agree
    - Agree
    - Neutral
    - Disagree
    - Strongly disagree

17. I was provided one or more opportunities to engage in professional development activities.
    - Strongly agree
    - Agree
    - Neutral
    - Disagree
    - Strongly disagree

18. Which of the following did you participate in during your professional development?
    - Listened to a lecture
    - Observed expert teacher(s) demonstrate a lesson or unit
    - Others observed you while you demonstrated a lesson or unit
    - Received feedback on my teaching and participated in discussion
    - Reviewed student work in the topic area covered
    - Led a discussion on a topic related to special education

19. The professional development I received was consistent with school, district, and state mandates and policies.
    - Strongly agree
    - Agree
    - Neutral
    - Disagree
    - Strongly disagree

20. The professional development I received was consistent with school curriculum and goals.
    - Strongly agree
    - Agree
    - Neutral
    - Disagree
    - Strongly disagree

21. The professional development I received was consistent with the needs of students.
    - Strongly agree
    - Agree
    - Neutral
    - Disagree
    - Strongly disagree

22. My professional development occurred over the following timeframe (Select ONE):
    - Less than one day
    - One day
    - Two – four days
    - A week
    - A month
    - More than a month
    - Not applicable
    - Other

23. Approximately how many hours did you engage in professional development activities?
    1. 1 – 5 hours
    2. 5 – 10 hours
    3. 10 – 15 hours
    4. 15 – 20 hours
    5. More than 20 hours
    6. Other

24. Which best describes your participation during professional development?
    - Individualized – (Teachers participate as individuals)
    - Representative – (Teacher participated as representative of their department, grade level, or school).
    - Building or Grade Teams – (Teachers participated as a team in department or grade level work together)
    - All School - (Teachers in a school or set of schools all participated).
    - Other

25. I participated in professional development with groups of teachers from the same grade, subject, or school.
    - Strongly agree
    - Agree
    - Neutral
    - Disagree
    - Strongly disagree

26. Attending professional development provides an opportunity to work with teachers from the same grade, subject, or school.
    - Strongly agree
    - Agree
    - Neutral
    - Disagree
    - Strongly disagree

27. The professional development I received increased my knowledge and skills as a special educator.
    - Strongly agree
    - Agree
    - Neutral
    - Disagree
    - Strongly disagree

28. The professional development I received changed my attitude and beliefs about the field of special education.
    - Strongly agree
    - Agree

- Neutral
- Disagree
- Strongly disagree

29. The professional development I received improved my instructional and content delivery.
    - Strongly agree
    - Agree
    - Neutral
    - Disagree
    - Strongly disagree

30. The professional development I received changed my approach to pedagogy (teaching).
    - Strongly agree
    - Agree
    - Neutral
    - Disagree
    - Strongly disagree

31. My students' grades improved because I am applying and implementing strategies learned from professional development.
    - Strongly agree
    - Agree
    - Neutral
    - Disagree
    - Strongly disagree

32. My students have made improvements reaching their IEP goals and benchmarks because I am applying and implementing strategies that I learned from professional development.
    - Strongly agree
    - Agree
    - Neutral
    - Disagree
    - Strongly disagree

33. The quality of professional development I received was valuable to my role as a special educator.
    - Strongly agree
    - Agree
    - Neutral
    - Disagree
    - Strongly disagree

34. The professional development I received provided quality content, strategies, and tools to help me be successful as a special educator.
    - Strongly agree

- Agree
- Neutral
- Disagree
- Strongly disagree

Mentorship

35. Before receiving a mentor, I had the option to provide input on who my mentor would be.
    - Strongly agree
    - Agree
    - Neutral
    - Disagree
    - Strongly disagree

36. My administrator or school district paired me with a mentor.
    - Strongly agree
    - Agree
    - Neutral
    - Disagree
    - Strongly disagree

37. My mentor and I established goals and maintained regular communication.
    - Strongly agree
    - Agree
    - Neutral
    - Disagree
    - Strongly disagree

38. When I was faced with an instructional challenge, my mentor provided timely feedback.
    - Strongly agree
    - Agree
    - Neutral
    - Disagree
    - Strongly disagree

39. My mentor was available for our scheduled meetings and rarely canceled.
    - Strongly agree
    - Agree
    - Neutral
    - Disagree
    - Strongly disagree

40. My mentor provided moral support by listening to my concerns and advocating on my behalf.
    - Strongly agree
    - Agree

- Neutral
- Disagree
- Strongly disagree

41. My mentor provided strategies on managing special education roles and responsibilities (e.g., writing IEPs, managing your caseload, connecting with parents).
    - Strongly agree
    - Agree
    - Neutral
    - Disagree
    - Strongly disagree

42. My mentor introduced me to teachers, staff members, and helped me established professional relationships.
    - Strongly agree
    - Agree
    - Neutral
    - Disagree
    - Strongly disagree

43. My mentor introduced me to teachers, staff members, and helped me establish informal relationships.
    - Strongly agree
    - Agree
    - Neutral
    - Disagree
    - Strongly disagree

44. My mentor helped me understand the norms and expectations of special education teachers.
    - Strongly agree
    - Agree
    - Neutral
    - Disagree
    - Strongly disagree

45. How would you rate the support you received from administrators?
    - Excellent support
    - Adequate support
    - Neutral
    - Insufficient support
    - Little to no support

46. How would you rate the support offered by your mentoring program?
    - Excellent support
    - Adequate support
    - Neutral

- Insufficient support
- Little to no support

47. My mentor is the kind of teacher I want to be.
    - Strongly agree
    - Agree
    - Neutral
    - Disagree
    - Strongly disagree

48. I feel a strong connection with my mentor.
    - Strongly agree
    - Agree
    - Neutral
    - Disagree
    - Strongly disagree

49. Approximately how many hours did you engage with your mentor?
    - 1 – 5 hours
    - 5 – 10 hours
    - 10 – 15 hours
    - 15 – 20 hours
    - More than 20 hours
    - Other

50. My mentorship occurred over the following timeframe (Select ONE):
    - Less than one day
    - One day
    - Two – four days
    - A week
    - A month
    - More than a month
    - Not applicable
    - Other

51. The mentorship I received was valuable to my role as a special educator.
    - Strongly agree
    - Agree
    - Neutral
    - Disagree
    - Strongly disagree

52. My mentor was available and provided strategies and tools to help me be successful as a special educator.
    - Strongly agree
    - Agree

- Neutral
- Disagree
- Strongly disagree

Special Educator Intent

53. Are you considering leaving the teaching profession within the next year?
    - Yes
    - No

54. I am likely to consider becoming a general education teacher within the next year.
    - Strongly agree
    - Agree
    - Neutral
    - Disagree
    - Strongly disagree